Touch & Go™ Technical Guide

Biometric Fingerprint Scanner
Hardware Installation, Service, and
Software Implementation

67-3014 Rev F

Omnicell®

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Table of Contents

Preface ii-1
How to Use this Manual ii-1
Where to Locate Related Information ii-1

Introduction to Touch & Go 1-1
Hardware Overview 1-1
Fingerprints 1-2
Fingerprint Security 1-2
User Authentication 1-3
Single-factor Authentication Mode 1-3
Two-factor with Fingerprint Authentication Mode 1-4
Two-factor with Password Authentication Mode 1-4
Fingerprint Registration 1-4
Setup User Compliance 1-5
System Requirements/Compatibility 1-5
More User Instructions 1-6

Installing the Touch & Go Fingerprint Scanner 2-1
Anesthesia Workstation (AWS) 2-1
Tools Required 2-1
Kit/Parts Required 2-2
Preparing the Workstation 2-2
Installing the Fingerprint Scanner 2-4
Electronic Sled Configuration 2-7
Final Procedures 2-10
Sure-Med 2-11
Tools Required 2-11
Kit/Parts Required 2-12
Preparing the Cabinet 2-12
Installing Touch & Go Device—Without Card Reader 2-14
Installing Touch & Go Device—With Card Reader 2-16
Final Procedures 2-22
OmniRx, OmniTT, Half-Cell, Anesthesia TT 2-23
Tools Required 2-23
Kit/Parts Required 2-23
Preparing the Cabinet 2-24
Removing the Printer 2-24
Installing the Touch & Go Device 2-27
Connecting the Cables 2-30
Final Procedures 2-32

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OmniSupplier Color Touch 2-32
Tools Required. 2-33
Kit/Parts Required. 2-33
Preparing the Cabinet. 2-33
Removing PC Box Bezel. 2-34
Installing the Touch & Go Device 2-34
Final Procedures 2-36
Service Instructions. 2-36

Retrofitting the Fingerprint Scanner with a Card Reader 3-1

Functionality/Implementation Options. 3-1
User ID/Card ID Mode 3-1
Card Only Positive ID. 3-1
Card Reader Types 3-2
OmniCenter Requirements. 3-3
Cabinet Configuration Options 3-4

Planning for Touch & Go 4-1

Gather Account Information 4-1
Review of Policies and Procedures. 4-1
Review New Features 4-2
Develop a Rollout Plan. 4-2
Discuss Fingerprint Options 4-2
Determine Best User Authentication Mode 4-3
Configure Settings Based on Best Practices. 4-3
Setting Up OmniCenter 4-3
Configure Color Touch Cabinets 4-3
Demonstrate Use. 4-4
Determine Fingerprint Registrars. 4-4
Train Users. 4-4
Go Live. 4-4

Setting Up OmniCenter 5-1

Setting Up Fingerprint Registrar. 5-1
Setting Up Global Fingerprint Registrars 5-2
Modifying the **FP Registrar** for Individual Users. 5-3
Setting Up FP Exempt 5-3

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Setting Up Color Touch Cabinets 6-1

Configure Cabinets Based on Best Practice 6-2
Enable Touch & Go 6-2
Registration Configurations 6-2
Registration Quality Enforced 6-2
Registration Quality 6-3
Minimum Match for Registration 6-3
Shortlist Configurations 6-3
Inactivity Aging 6-4
Minimum Match for Short List 6-4
Short List Max Size 6-5
Non-Shortlist Configurations 6-5
Minimum Match with User ID 6-5
Match Sensitivity 6-6
Other Modifications 6-7
Exempt User Configurations 6-7
Fingerprint Instructions 6-7
Fingerprint Help 6-8
Password Entry 6-9
Sensor Health Diagnostics 6-10
Other Configurations 6-11
Fingerprint Activity 6-12

Fingerprint Registration 7-1

Prepare for Registration 7-1
Register Fingerprints 7-1
Create Logs 7-7
Determine When to Make a User Exempt 7-8
Re-Register Fingerprints 7-8
When to Enable Fingerprint Required for Password Configuration 7-9
User Name Display 7-9

Scanner Maintenance 8-1

Cleaning the Scanner 8-1
Checking Pixel Damage 8-1
Sensor Check Procedure 8-3

Training Customers 9-1

Proper Use of Fingerprint Log In 9-1
Proper Finger Placement 9-1
Achieve a Quality Fingerprint Registration 9-2
Fingerprint Registration Quality 9-2
Ineligible User 9-3
Fingerprint Quality Disabled 9-3
Consistent Finger Placement at Log In 9-3
Poor Image Quality User Flow 9-4

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Appropriate Maintenance of the Sensor 9-4

Troubleshooting 10-1

Fingerprint Data Capture 10-1
Minimizing Failed ID 10-2
Sensor is Unresponsive 10-2
Fingerprint Diagnostics and Statistics 10-2
Challenges 10-3

Appendix A: Parts/Kit List A-1

Anesthesia Workstation (AWS) and Table Top (TT) A-1
Sure-Med A-2
OmniRx/OmniTT/Half-Cell A-2
Color Touch Cabinet A-3

Appendix B: Best Practice Forms B-1

Glossary GL-1

Index IN-1

Documentation Feedback FB-1

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Preface

The purpose of this manual is to help the Omnicell Field Operations Implementation team successfully plan and install Touch & Go on an Omnicell 14.0 system. Implementation is defined as the planning, installation, configuration, tailoring, and troubleshooting necessary for a product or feature to go live.

How to Use this Manual

The manual is designed as a step by step guide that focuses on the tasks needed for software implementation.

Note: All screen shots are taken from the Omnicell 14.0 release.

1. "Introduction to Touch & Go" on page 1-1, provides an overview to Touch & Go and its software features. Use this chapter to understand the major concepts that influence the implementation.
2. "Installing the Touch & Go Fingerprint Scanner" on page 2-1,
3. "Retrofitting the Fingerprint Scanner with a Card Reader" on page 3-1,
4. "Planning for Touch & Go" on page 4-1, focuses on the tasks encountered during the planning phase of implementation. Use this chapter to ensure that known best practices are followed during implementation.
5. "Setting Up OmniCenter" on page 5-1, provides the steps for software configuration of OmniCenter for Touch & Go-related features.
6. "Setting Up Color Touch Cabinets" on page 6-1, provides the steps for software configuration of Color Touch cabinets for Touch & Go-related features.
7. "Fingerprint Registration" on page 7-1, provides the steps for registering users.
8. "Scanner Maintenance" on page 8-1, provides the steps for scanner health.
9. "Training Customers" on page 9-1, provides an outline of suggested training topics that customers learn before the system goes live.
10. "Troubleshooting" on page 10-1,

Reference material along with a glossary and index are also provided.

Where to Locate Related Information

Release and product information for both technical documentation and user documentation can be found on the Omnicell intranet.

- User documentation for each release is available through inSite at: http://insite/departments/Documentation/All%20Employee%20Library/Forms/View_by_Product.aspx
- Technical documentation is available at: http://hdq-intranet/Documentation/techdoc/wwhelp/wwhimpl/js/html/wwhelp.htm

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Some related documents of particular interest to Touch & Go are:

Document	Description	Where Located
Omnicell Implementation Guide	Provides planning information for the implementation of the OmniCenter® server and automated cabinets.	PN 67-3004, available in HTML and PDF formats through TechDoc Central on inSite.
1,2,3-Cell Color Touch Installation and Service Guide	Provide hardware installation, including matrix drawer design and setup.	PN 67-2014, available in HTML and PDF formats through TechDoc Central on inSite.
Omnicell Product Equipment Specifications	Provides an introduction to all Omnicell hardware products. It can be used by marketing for quoting to customers in proposals. It can also be referenced by project managers and field engineers for implementation and installation purposes.	PN 67-2031, available in HTML and PDF formats through TechDoc Central on inSite
OmniCenter 14.0 Administrator Guide	Describes the features and functionality of the Omnicell® OmniCenter Information Management System. It is designed to be a detailed resource for the operation of the OmniCenter.	PN 60-0140, available in PDF formats through inSite.
Omnicell Color Touch 5.10 Guide	Provides functional descriptions available to end users at Color Touch cabinets.	PN 60-0139, available in PDF formats through inSite.
Omnicell 14.0 Technical Release Summary		PN 67-3039, available in HTML and PDF formats through TechDoc Central on inSite.

Table ii-1. Related Documentation

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Introduction to Touch & Go

The Touch & Go™ fingerprint scanner is a biometric, positive-ID system. A biometric system is made up of a sensor, a computer unit, and an application for which the user's authentication is necessary. The sensor captures the biometric characteristic; and the computer unit processes and eventually saves the biometric data.

The identification of users in a computer system is often done through the use of an ID and password. IDs and passwords are capable of being forgotten, shared, or stolen. Biometric systems, such as Omnicell's biometric fingerprint system, use personal features of the user to check identity. Biometric systems can be particularly important to hospitals trying to keep medications and clinical information secure from inappropriate access. Fingerprint recognition is the most common form of biometric identification.

When effectively implemented, Omnicell's biometric fingerprint system offers high security and fast access to the Color Touch cabinet. It provides a more secure access because there are no lost or stolen passwords. Also, no one can replicate or "hack" a fingerprint image. Some state regulations require positive user identification and fingerprint scanning helps to meet this requirement. It provides a more rapid access to cabinets because it requires less key strokes than typing a password. The cabinet uses this hardware for both verification (authentication) and registration of user fingerprints.

Hardware Overview

Omnicell cabinets that are ordered initially with Touch & Go are shipped with the feature installed from manufacturing. However, cabinets can be retrofitted for Touch & Go at the customer facility.

The Touch & Go device contains the housing for a card reader, to the left or right of the fingerprint scanner.

Figure 1-1. Fingerprint Sensor with Card Reader

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If Touch & Go is ordered with a card reader, the applicable reader mechanism is installed by manufacturing. If the cabinet has an existing card reader, it is uninstalled and replaced with the Touch & Go device. See "Retrofitting the Fingerprint Scanner with a Card Reader" on page 3-1.

Note: If installing a card reader by itself, refer to the *Card Reader Installation and Configuration Guide*, PN 67-2006.

Fingerprints

Fingerprints are the result of minute ridges and valleys found on the fingertip of every person. They are based on the ridges of skin forming a pattern that is unique to each individual. Each fingerprint has one of three core features: loops, whorls, or arches. It is the core of the fingerprint that contains the most information.

Many user issues impact the success of any biometric fingerprint system. Cuts, bruises, aging, and wearing of the skin all impact how well a biometric device scans a fingerprint. A hospital's environmental conditions can also impact image quality by causing hands to be dry or excessively moist. Fingerprint quality varies from finger to finger and a user's hobbies, such as gardening woodworking, or rock climbing can all impact the ability to get a good fingerprint scan. Some users may even be impacted by rare skin diseases or burns which permanently destroy a fingerprint. These specified users can remain completely exempt from biometric requirements.

Users register a reference fingerprint that is used for comparison at the time of login. A good registration is the best predictor of future successful logins.

- 70% of users are able to register in under two minutes.
- 20-25% of users are more difficult to register because of the pattern or texture of their fingerprints. In this case, registration may take up to 10 minutes.
- 5-10% of users have unreadable fingerprints and are not able to register. These users are exempt and use a User ID + password for login.

Fingerprint Security

Users may have concerns about identity theft or misuse of their fingerprint. Omnicell does not store or transmit fingerprint images. Fingerprint scanners work by capturing and measuring the relative position of the different core features (loops, whorls, and arches) of a fingerprint. The fingerprint is broken down into a complex pattern of unique features called minutiae. The pattern (not the fingerprint) is stored numerically.

When a fingerprint is scanned, it is processed into an encrypted, secure, numeric code and then immediately deleted from memory. The Fujitsu fingerprint technology software, built into the Omnicell software, performs the fingerprint identification processing. The fingerprint minutia numeric code can only be used by the Fujitsu fingerprint technology software. It cannot be reverse-engineered to recreate a fingerprint image. The actual image is deleted. The only information retained is the X-Y location of the minutia points. These minutia points are used for match comparisons using the Fujitsu software. Omnicell cannot modify the Fujitsu fingerprint software, because Omnicell does not have access to the underlying Fujitsu source code.

The fingerprint security configurations of the Touch & Go product provide increased security and reduces the chance of failed identifications. These configurations allow customers to easily adjust the security and reliability of the fingerprint identification feature to meet their particular needs.

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User Authentication

Omnicell's biometric fingerprint system provides two functions: Identification and Verification. The identification function compares and identifies one user out of many possible users. The verification function makes sure a user is who they claim to be.

Verification, or authentication, is the process of determining the identity of a person and confirming his or her authenticity. An authentication factor is a piece of information (such as a password, User ID, or fingerprint) and the process used to verify the identity of a person. In order for a User ID to qualify as an authentication factor, only the user can know it. The user ID should be hard to obtain and not be displayed. A user ID may be entered via keyboard entry, magnetic card, or bar code.

A weak user ID is one which can be easily guessed by another user, and therefore is not considered a personally identifiable factor for authentication purposes. User names which follow a simple pattern, such as first name plus the first two letters of the last name, fall into the weak category.

A strong user ID contains information that would be known to the user but not readily known or available to other users. User names which include the last four digits of the user's social security number or random three-digit number assigned by the system would fall into the strong category.

Omnicell has identified three user authentication modes:

- Single-factor (Touch & Go) authentication
- Two-factor with fingerprint authentication
- Two-factor with password authentication

Single-factor Authentication Mode

The single-factor authentication mode is secure and is the most convenient. It requires a fingerprint only. This mode employs the use of the short list along with the recommended configuration settings. A short list is a list of fingerprint users within a defined window of activity. It is a subset of the total users in the database. The length of time that a user remains on a short list is determined by user activity and configurable cabinet settings. After an initial user ID (with fingerprint or password) is entered on each cabinet that is accessed daily, subsequent login actions only require a fingerprint scan.

If a login fingerprint matches more than one user at or above the minimum quality threshold, the system warns the user and does not allow access. These users may need to be re-registered with a different finger or made exempt.

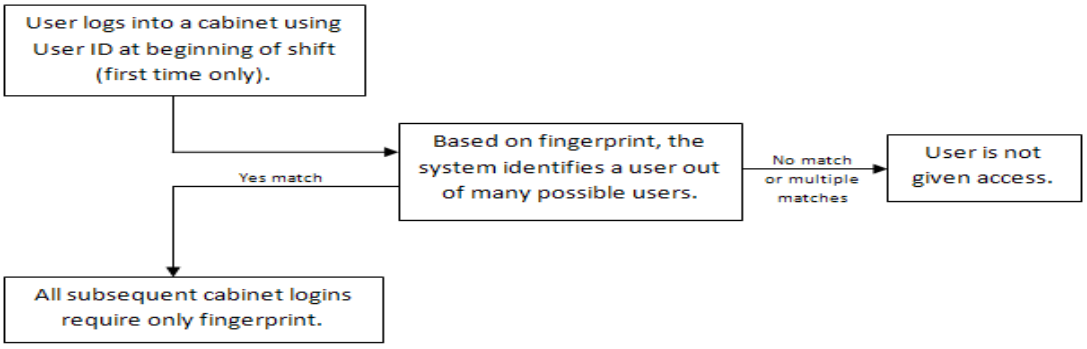
User logs into a cabinet using User ID at beginning of shift (first time only).
Based on fingerprint, the system identifies a user out of many possible users.
No match or multiple matches
User is not given access.
Yes match
All subsequent cabinet logins require only fingerprint.

Figure 1-2. Convenience Authentication

Two-factor with Fingerprint Authentication Mode

The two-factor with fingerprint authentication mode uses two pieces of information to verify identity. It requires a strong user ID and fingerprint. After the user enters their user ID and their fingerprint is scanned, the system brings up the user's stored sample pattern. The system tries to verify that the fingerprint samples match using a one-to-one comparison. It is the most secure mode because no one can replicate or "hack" the user's fingerprint image.

Two-factor with Password Authentication Mode

The two-factor with password authentication mode uses two pieces of information to verify identity. It requires a strong user ID and password. It is more secure than single-factor.

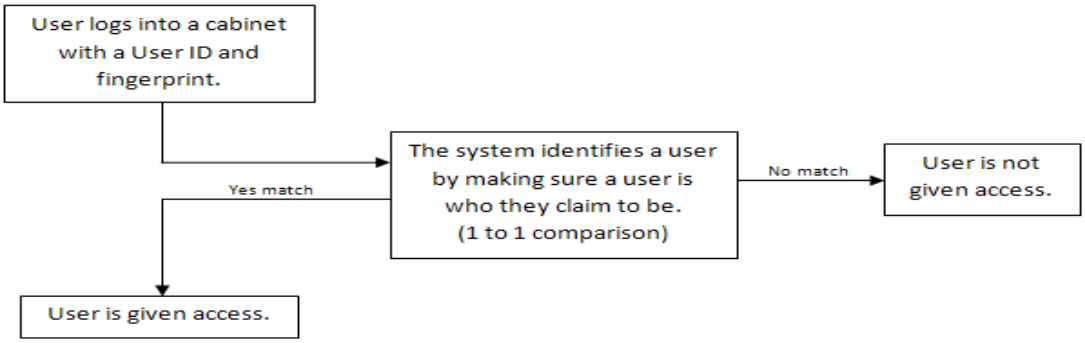
User logs into a cabinet with a User ID and fingerprint.
The system identifies a user by making sure a user is who they claim to be. (1 to 1 comparison)
No match
User is not given access.
Yes match
User is given access.

Figure 1-3. Single- or Two-factor Authentication

Omnicell recommends the implementation of two-factor authentication. Nevertheless, it is the customer who decides whether to implement single-factor or two-factor authentication. This decision impacts the system's overall speed, security, training requirements, and administrative issues.

Fingerprint Registration

Fingerprint registration and login functions occur at the Color Touch cabinet. User access, witness, and registration privileges are controlled within the individual user record by OmniCenter®. Users can be required to attain a configurable, minimum fingerprint registration quality before using fingerprint for login or witness. A user's fingerprint verification can be used for any login or witness process. Any transaction that requires a witness is supported by this feature. Users only need to register fingerprints at one cabinet. The encrypted numeric fingerprint code is sent to all appropriate cabinets via OmniCenter.

The initial fingerprint registration process requires two people—the registrar and the user being registered. The biometric registration process is restricted to specific users designated as registrars. The purpose of the registrar is to oversee the registration of others. Registrars are encouraged to complete a comprehensive training prior to registering users. In order to initiate registration, a valid registrar must log in first. Then the user is guided to scan a fingerprint to create a database fingerprint signature.

The registration process involves getting a good scan of the finger's core feature. The goal is to place the core of the fingerprint so that it covers most, if not all, of the scanning window. It is important to generate a high quality print but a good quality print is more than just the quality

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score. The selected finger must be scanned four times and a successful scan is used as the criteria for the required subsequent scans. If the first print is not centered on the core feature or doesn't cover enough of the window, the user should start over.

The first fingerprint is the most important. The first print becomes the standard that the second print needs to match, and so on. The most difficult print is the fourth print. The user needs to achieve a print quality of 70 or higher if the minimum score was not reached on the first, second, or third print. In addition, the fourth print must match the first three prints with a match score of 7 or higher. The system picks the print that has the highest combined match score to the other three prints AND a quality score of at least 70. The system is not “averaging” or combining the prints to come up with a registration model.

Note: The quality score of 70 is the default setting of a configurable value.

Some users are more difficult to register than others. A fingerprint enhancer may be needed by individuals with worn ridge detail or excessively dry hands. Do not use lotions or moisturizers. Over time, residue builds up and clouds the sensor, making ti difficult to subsequent users. A PreScan® PS 5 or PS 30 fingerprint enhancer pad can enhance ridge detail and improve fingerprint capture.

Setup User Compliance

It is highly recommended that each PM/IS maintain a log of registered users and exempt users. The log information should include user quality scores and whether a fingerprint enhancer was required. This is helpful in tracing any user-specific issues.

System Requirements/Compatibility

The Touch & Go fingerprint scanning device can be installed on Color Touch cabinets running Windows® XP and Omnicell 9000 software or higher.

Important: At a minimum, Windows XP is required at the cabinet and Windows 2000 is required at the server. For full functionality of all Touch & Go features, Windows 2003 is required at the server and Omnicell 14.0 is required at the cabinet.

The following are required to implement this feature:

- OmniCenter running Microsoft Windows Server 2000 or higher, and Omnicell 9000 software or higher.
- Color Touch cabinets running Microsoft Windows XP and Color Touch 5.6 or higher.
- A Touch & Go device installed and enabled on the cabinet.

Specific cabinet types supported are:

- Sure-Med® Color Touch
- OmniRx® Color Touch
- OmniSupplier® Color Touch

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The Touch & Go device can be ordered with or without a magnetic card or bar code reader. The Touch & Go device contains the housing for a card reader on the left or right of the fingerprint scanner. If ordered with a card reader, the applicable reader mechanism is installed in manufacturing. Regardless, if the cabinet has an existing card reader, it is uninstalled and replaced with the Touch & Go device.

More User Instructions

Complete registration instructions along with usage tips are provided in the Color Touch User Guides:

Color Touch 5.10 User Guide	*PN 60-0139 Rev A*
Color Touch 5.9.1 User Guide Addendum	*PN 60-0148 Rev-B*
Color Touch 5.9 User Guide	*PN 60-0121 Rev A*
Color Touch User Guide 5.8	*PN 60-0114 Rev A*
Color Touch User Guide JT5.7	*PN 60-0099 Rev A*

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Installing the Touch & Go Fingerprint Scanner

This chapter provides installation procedures that can be performed by a qualified Omnicell representative. The procedures are for the following cabinet types:

- Anesthesia Workstation (AWS)
- Sure-Med
- OmniRx/OmniTT/Half-Cell/Anesthesia TT™
- OmniSupplier Color Touch

The Touch & Go fingerprint scanner can be installed by itself, with a magnetic card reader or with a bar code card reader.

These procedures are based on installation to the following sleds by cabinet type:

- Sure-Med: US Logic motherboard
- Omnicell: ETX motherboard

Perform any necessary sled upgrades prior to installing the Touch & Go device.

The following sections address each cabinet type. Tools and parts are specified for a unique retrofit. Refer to "Appendix A: Parts/Kit List" on page A-1 for kit listings by cabinet type.

Anesthesia Workstation (AWS)

The following instructions apply to Touch & Go device installation for Anesthesia Workstations.

The Touch & Go fingerprint scanner is attached to the side of the AWS keyboard. The cables are routed through the keyboard bracket cutout and LCD bezel into the electronic sled.

Tools Required

- T-10 Torx driver
- ESD wristband

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Kit/Parts Required

Different kits may be used for the replacement, depending on the customer choice of options. (See Figure 2-1.) Refer to "Anesthesia Workstation (AWS) and Table Top (TT)" on page A-1 for the kit/parts list.

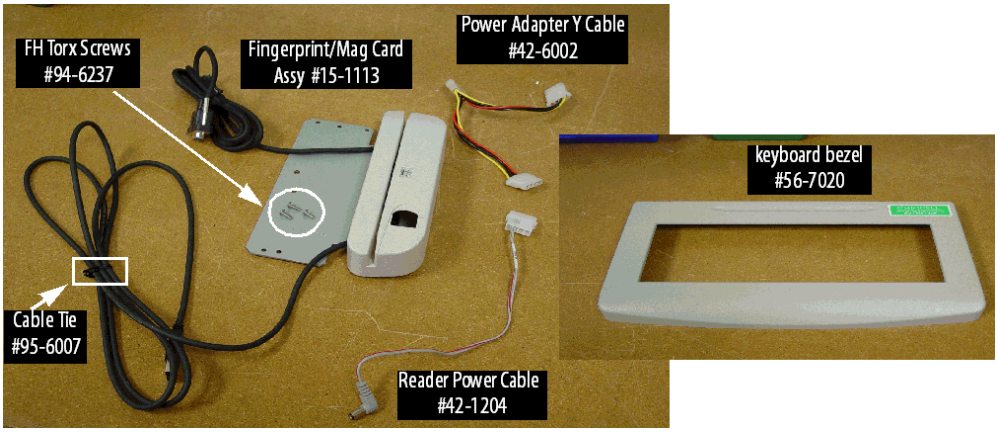

Figure 2-1. Touch & Go Kits #14-1213, 14-1214, 14-1215, 14-1216; [14-1262 (fingerprint scanner only)]

Preparing the Workstation

1. Log on at the **Administration** menu.
2. Press **Exit To Shell**.
3. Press **OK** on the confirmation window.
4. Select **Shutdown On Exit** in the Exit the Shell section.
5. Press **Exit The Shell**.

Note: Wait for the screen to display: "It is now safe to turn off this OmniCT."

6. Switch the power off at the back of the station.
7. Unplug the AWS power cord.

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8. Remove the 16 screws holding the LCD bezel cover in place using a T-10 Torx driver. (See Figure 2-2.)

Figure 2-2. Removing the LCD bezel

9. Unlock the Cam Lock on the front of the AWS. Use a #2036 key.
10. Lift the sled top and pull it forward; lift up and set it aside. (See Figure 2-3 and Figure 2-4.)

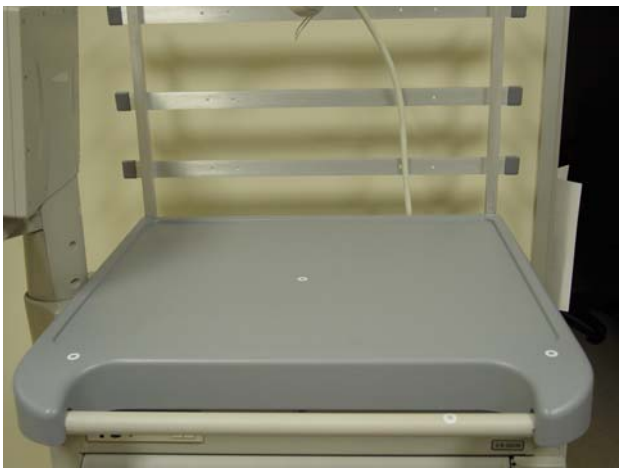

Figure 2-3. Accessing the electronic sled

Figure 2-4. Keyboard without Touch & Go

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11. Remove the eight screws from the keyboard-LCD bracket. (See Figure 2-5.)

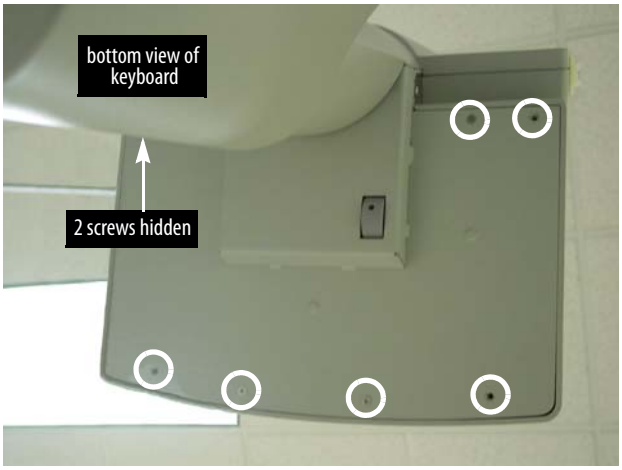

Figure 2-5. Accessing the keyboard assembly

Caution: Put on a grounded ESD wristband before working on the electronic sled.

Installing the Fingerprint Scanner

1. Disconnect the cable(s) inside the electronics sled, remove the cable(s), and set the old assembly aside.

Note: If the existing keyboard bezel is in good shape, skip to Step 4.

If the bezel does not have a notch for the cord, use a round file to create one.

2. Remove the eight screws holding the keyboard base (84 key-to-bezel bracket) in place. This will enable the removal of the existing keyboard bezel.
3. Secure the keyboard base to a new keyboard bezel. (See Figure 2-6.)

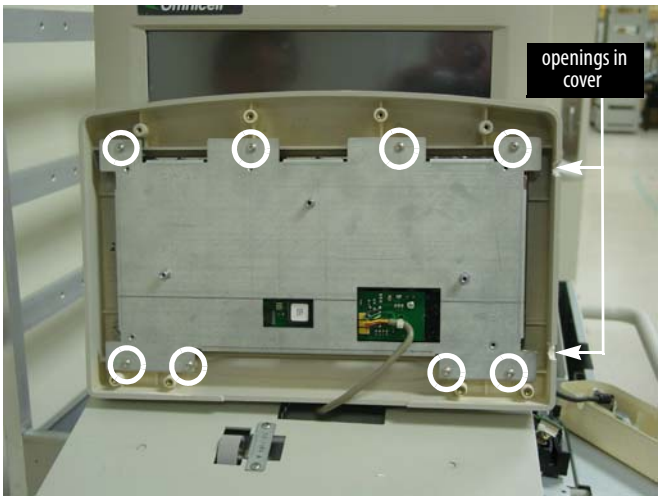

Figure 2-6. Securing the new keyboard bezel

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4. Remove the four corner reader bracket screws to take off the new reader bezel. (See Figure 2-7.)

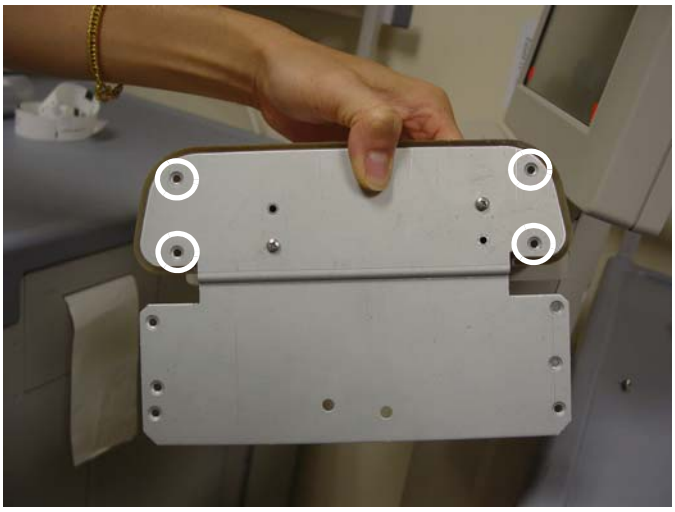

Figure 2-7. Accessing the reader assembly (mag card or bar code and fingerprint manufacturing assembly)

5. Lift the fingerprint scanner cable from its support, then disconnect the connector. (See Figure 2-8.) The serial connector at the other end is too wide to fit through the electronics sled cutout.

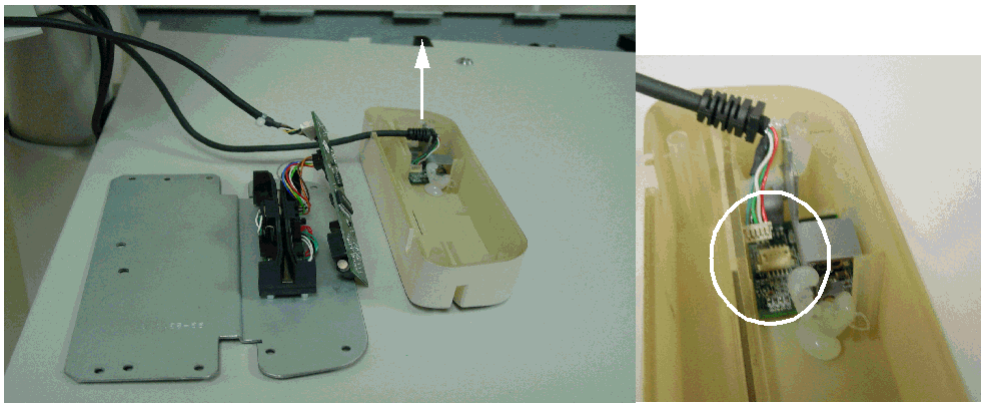

Figure 2-8. Removal of the Touch & Go cable from the reader unit

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6. Route the fingerprint scanner cable from the electronics sled, through the LCD bezel, to the keyboard bracket cutout. (See Figure 2-9.) Allow eight inches of cable from the bracket cutout to reach the reader unit.

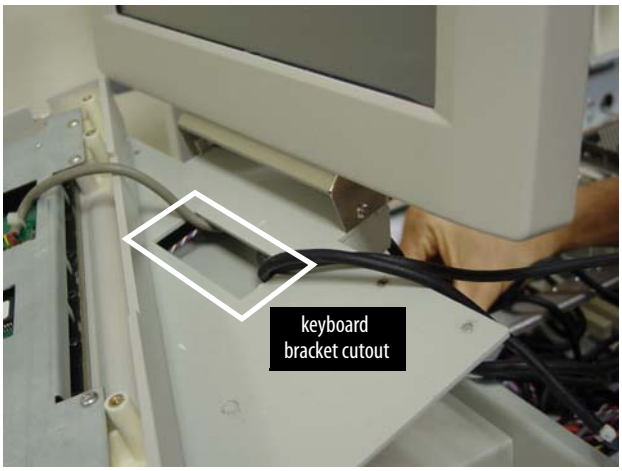

Figure 2-9. Routing cables through keyboard bracket cutout

7. Re-connect the fingerprint scanner cable connector to the reader assembly and set the cable on its support.
8. Route the other (mag card reader or bar code scanner) cable (if any) from the reader assembly through the keyboard bracket cutout and LCD bezel into the electronics sled. (See Figure 2-10.)

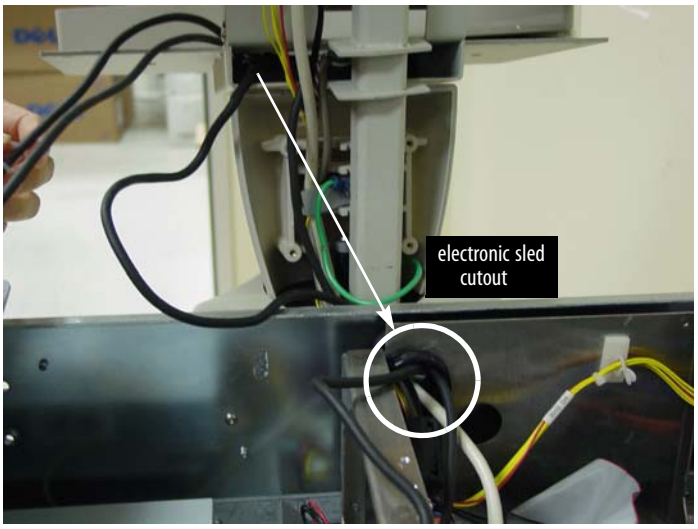

Figure 2-10. Routing cables through bezel into electronic sled

9. Secure the reader bezel to the reader bracket.

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10. Route the fingerprint scanner cable through the front keyboard opening and the USB reader cable through the back keyboard opening (if any). (See Figure 2-11.)

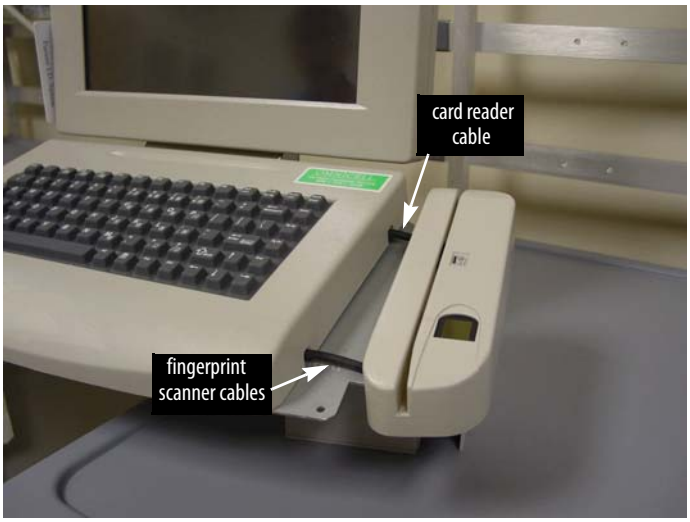

Figure 2-11. Routing cables through the keyboard openings

11. Secure the keyboard assembly to the keyboard bracket. Leave three screw holes open on the right side (one in front, two in back) where the reader bracket is placed.
12. Secure the reader bracket to the keyboard bracket using three 6-32 x 3/8 flat head Torx screws. (See Figure 2-4 on page 2-3).
13. Re-install the LCD bezel.

Electronic Sled Configuration

Note: Using the Y cable is only applicable for workstations that have a CD-ROM.

1. Connect the CD ROM power cable to the male end of the power adapter Y-cable (PN #42-6002). (See Figure 2-12.)

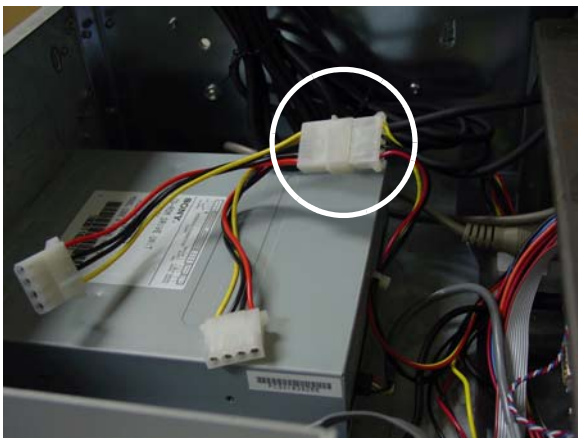

Figure 2-12. Splitting the CD-ROM power for the fingerprint scanner

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2. Connect one of the female ends of the Y-cable into the CD ROM. (See Figure 2-13.)

Figure 2-13. Returning power to the CD-ROM

3. Connect the last open end of the Y-cable to the male end of the (#42-1204) reader power cable. (See Figure 2-14.)

Figure 2-14. Relaying power to the fingerprint scanner

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4. Plug the other end of the reader power cable into the back of the fingerprint scanner serial connector. (See Figure 2-15.)

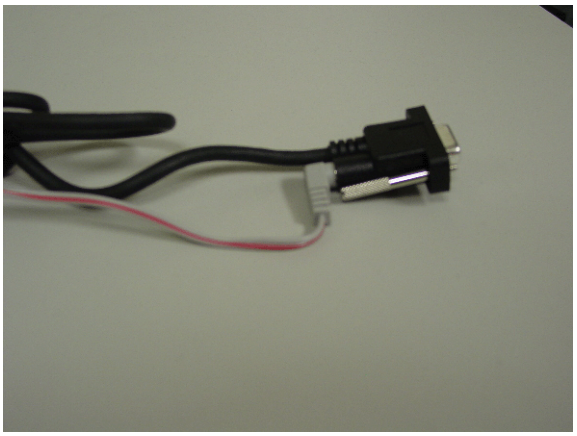

Figure 2-15. Connecting power to fingerprint scanner serial connector

5. Connect the fingerprint scanner's serial connector into the serial port. (See Figure 2-16.)

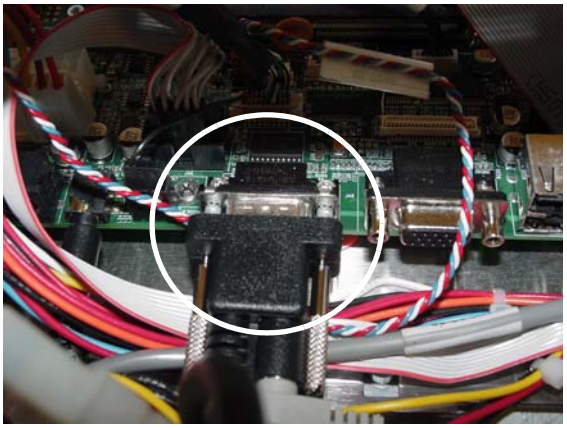

Figure 2-16. Securing the fingerprint scanner cable connection

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6. Connect the USB connector for the mag card reader or bar code scanner (if any) into the USB port. (See Figure 2-17.)

Note: If connecting the fingerprint scanner to an EXT2 board, use the auxiliary USB ports (slots 3-6) on the side of the board. Do not use the original right angle USB ports (slots 1-2) to avoid disconnection problems.

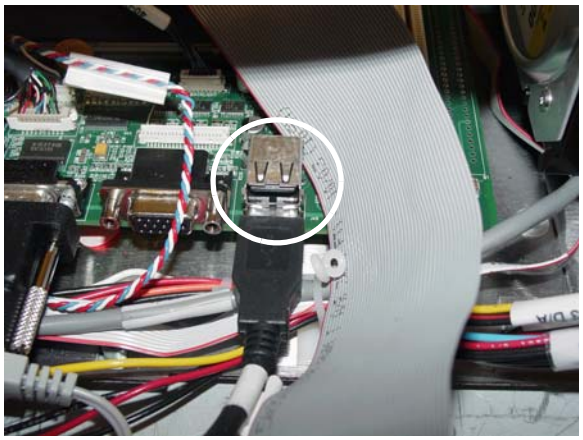

Figure 2-17. Securing the magnetic card reader or bar code scanner cable connection

7. Remove the ESD wristband.
8. Replace the sled top. (See Figure 2-18.)

Figure 2-18. Completed Replacement

Final Procedures

1. Turn on the power switch in the back of the cabinet.
2. Reboot the Color Touch software.

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3. Log in to the cabinet (as Omnitech or other authorized User Type).
4. Proceed to "Setting Up Color Touch Cabinets" on page 6-1 to complete the installation.

Sure-Med

The following instructions apply to Touch & Go device installation for Sure-Med cabinets, using manufacturing kit #14-1236 (fingerprint reader only), #14-1237 (with mag card reader) or #14-1238 (with bar code reader).

Tools Required

- T-10 Torx driver
- T-8 Torx driver
- Pliers
- ESD wristband

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Kit/Parts Required

(See Figure 2-19 and Figure 2-20.)

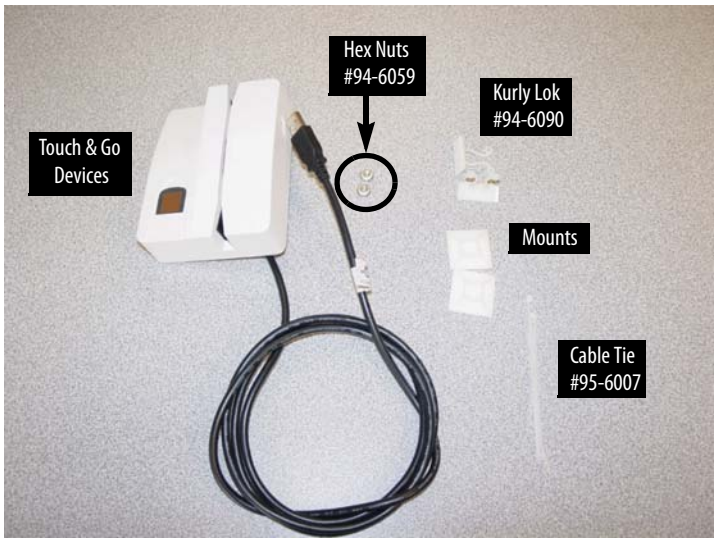

Figure 2-19. Touch & Go Kit #14-1236 (fingerprint scanner only)

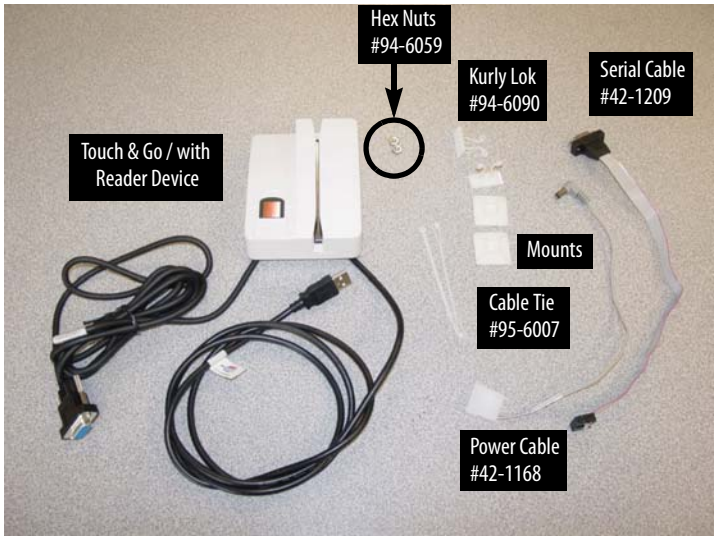

Figure 2-20. Touch & Go Kits #14-1237 (mag card reader) or #14-1238 (bar code reader)

Preparing the Cabinet

1. Perform a graceful shutdown of the cabinet software, then power down the cabinet and disconnect the power cord.
2. Access the electronics sled.

Caution: Put on a grounded ESD wristband before working on the electronic sled.

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Note: If a card reader is currently installed, perform Steps 3-5, then proceed to the appropriate installation section (with or without a card reader). If there is no card reader, skip to Step 6.

3. Disconnect the card reader serial and power cables. (See Figure 2-21.)

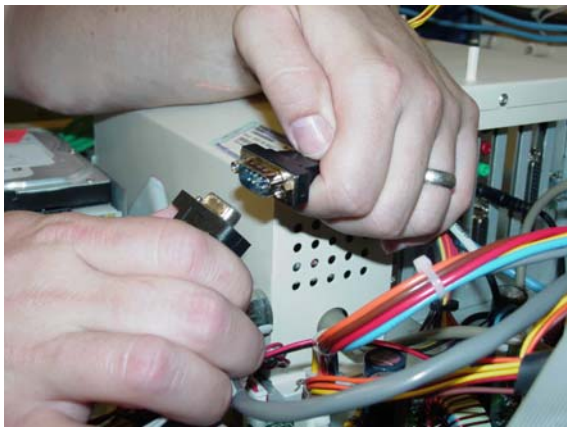

Figure 2-21. Disconnecting an existing card reader's serial cable

4. Remove the screws securing the card reader to the cabinet lid (mounting schemes vary). (See Figure 2-22.)

Figure 2-22. Removing an existing card reader

5. Remove the card reader from the lid.

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6. Use pliers to remove the two 6-32 hex nuts securing the blank cover plate to the lid. (See Figure 2-23.)

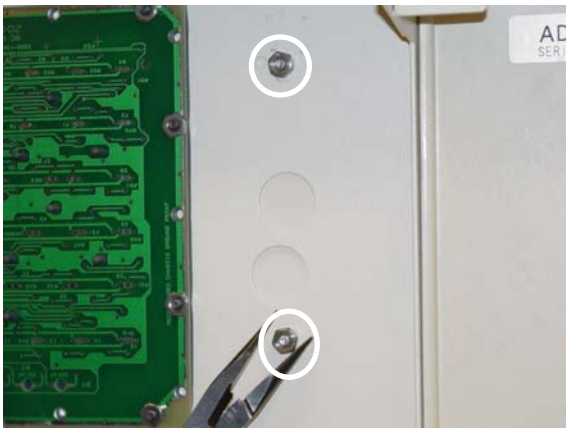

Figure 2-23. Removing the blank plate

7. Remove the blank cover plate from the lid.

Installing Touch & Go Device—Without Card Reader

1. Turn the Touch & Go device over to access the mounting plate.
2. Use a T-10 Torx driver to remove the 6-32 pan head screw nearest the post (bottom end), and temporarily set it aside. (See Figure 2-24.)

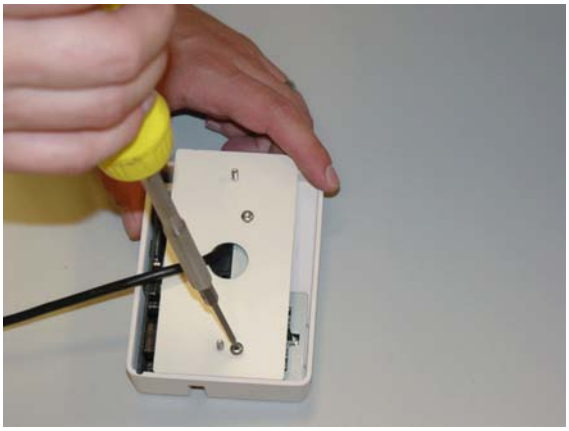

Figure 2-24. Preparing Touch & Go device for mounting

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3. Thread the fingerprint USB cable through the cabinet lid from the outside in. (See Figure 2-25.)

Figure 2-25. Routing the fingerprint USB cable

4. Align the device so that the two mounting plate studs fit through the corresponding holes in the cabinet lid.
5. Secure the device to the cabinet lid using the screw removed in Step 2. (See Figure 2-26.)

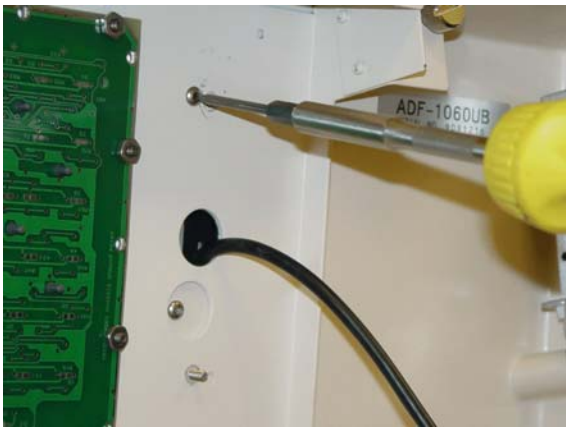

Figure 2-26. Aligning device and replacing the mounting screw

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6. Use pliers to install the two hex nuts (provided in the kit) onto the mounting plate studs. (See Figure 2-27.)

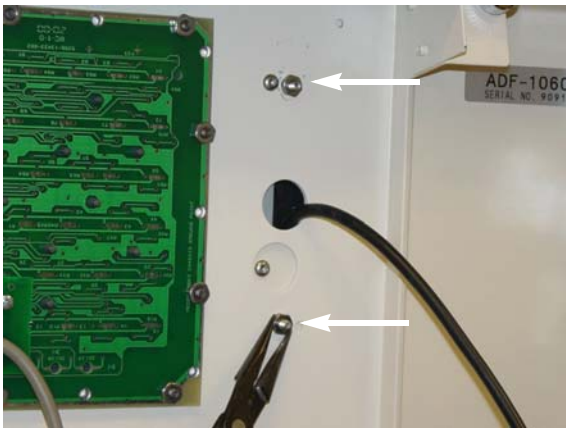

Figure 2-27. Installing the hex nuts

7. Route all cables neatly, using the cable ties/kurly locks provided in the kit, as needed.
8. Connect the fingerprint USB cable to the USB port on the electronics tray, located on the right side of electromagnetic interference (EMI) shield. (See Figure 2-28.)

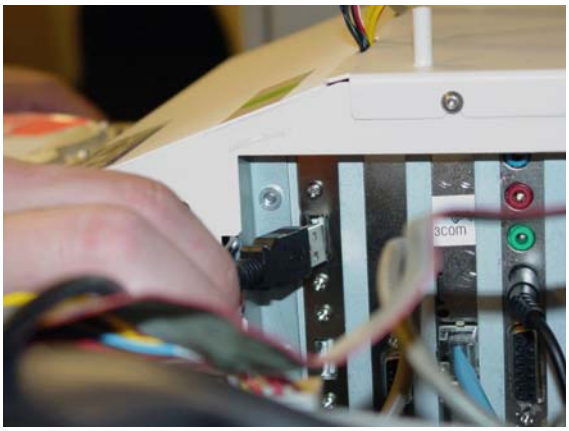

Figure 2-28. Connecting the USB cable

9. Skip to "Final Procedures" on page 2-22.

Installing Touch & Go Device—With Card Reader

1. Turn the Touch & Go device over to access the mounting plate.

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2. Use a T-10 Torx driver to remove the two 6-32 pan head screws securing the mounting plate, and set them aside. (See Figure 2-29.)

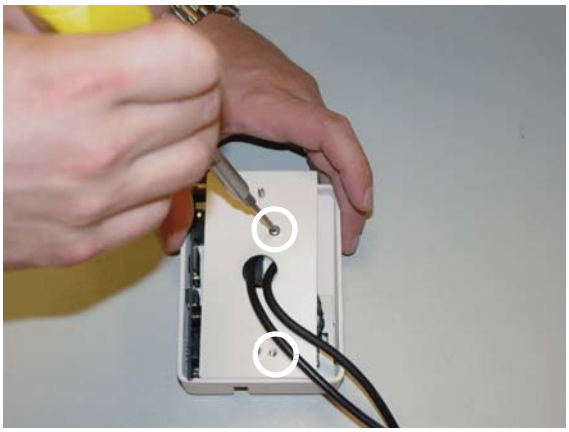

Figure 2-29. Removing the mounting plate

3. Slide the mounting plate down the cables to access the internal assembly.
4. Use a T-8 Torx driver to remove the three 4-40 pan head screws securing the card reader assembly, and set them aside. (See Figure 2-30.)

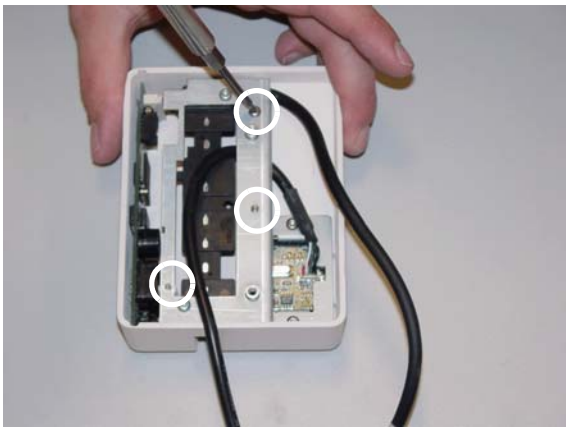

Figure 2-30. Accessing the card reader assembly

5. Move the card reader assembly aside to access the card reader board.
6. Disconnect the card reader cable from J3 on the card reader board.

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7. Separate the card reader cable from the assembly. (See Figure 2-31.)

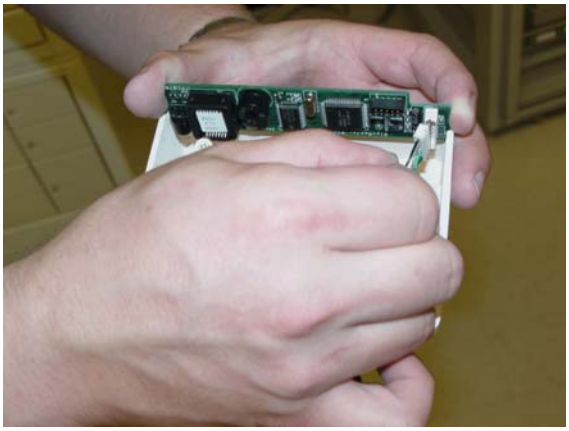

Figure 2-31. Disconnecting the card reader cable

8. Feed the card reader cable (small end) through the cabinet lid from the inside out. (See Figure 2-32.)

Figure 2-32. Routing the card reader cable through the cabinet

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9. Thread the card reader cable through the mounting plate of the Touch & Go device. (See Figure 2-33.)

Figure 2-33. Threading the reader cable through the mounting plate

10. Reconnect the card reader cable to J3 on the card reader board. (See Figure 2-34.)

Figure 2-34. Connect the reader cable to the assembly

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11. Reassemble the Touch & Go card reader device. When replacing the mounting bracket, do not install the 6-32 pan head screw closest to the post. (See Figure 2-35.)

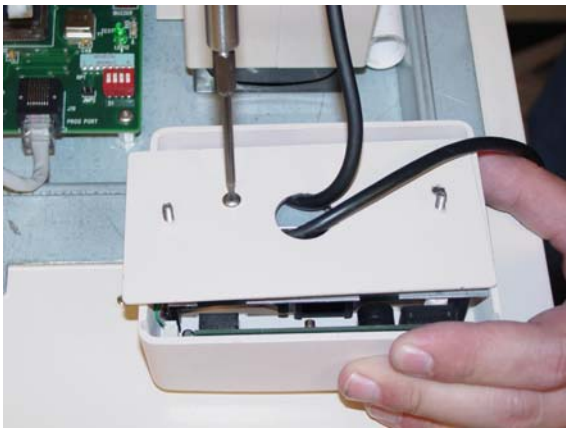

Figure 2-35. Reassembling the Touch & Go device

12. Thread the fingerprint USB cable through the cabinet lid from the outside in. (See Figure 2-36.)

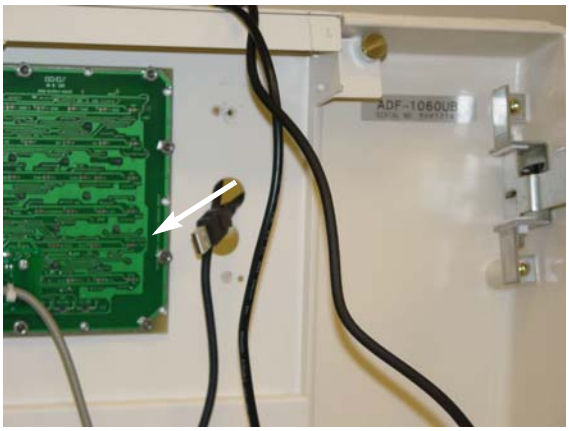

Figure 2-36. Routing the fingerprint cable

13. Align the device so that the two mounting plate studs fit through the corresponding holes in the cabinet lid.

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14. Secure the device to the cabinet lid using the remaining 6-32 pan head screw, removed in Step 2. (See Figure 2-37.)

Figure 2-37. Aligning the device and replacing the mounting screw

15. Use pliers to install the two hex nuts provided in the kit onto the mounting plate studs. (See Figure 2-38.)

Figure 2-38. Installing the hex nuts

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16. Connect the fingerprint USB cable to the USB port on the electronics tray, located on the right side of EMI shield. (See Figure 2-39.)

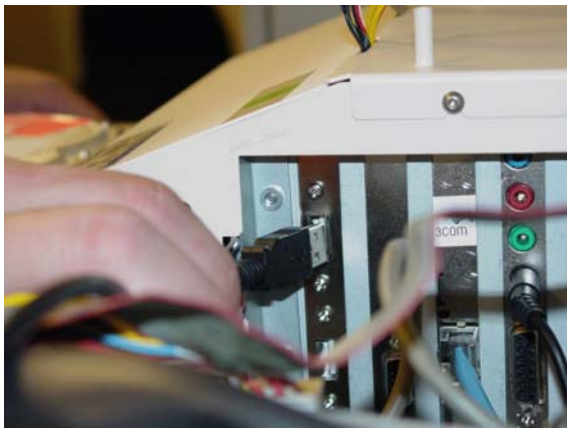

Figure 2-39. Connecting the fingerprint USB cable

17. Connect the USB cable.
18. Route all cables neatly, using the cable ties/kurly locks provided in the kit, as needed.
19. Connect the card reader serial cable to the serial port.
20. Connect the power cable to the back of the serial cable connector. (See Figure 2-40.)

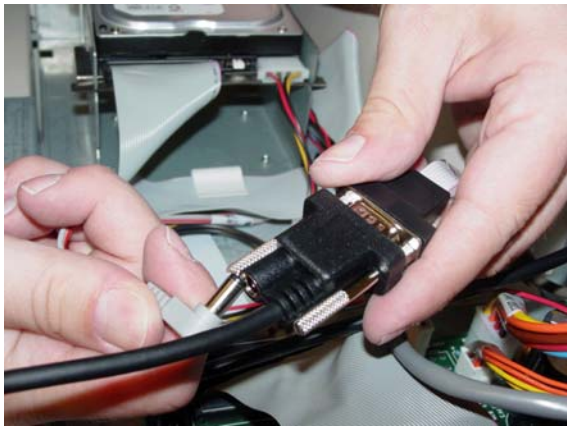

Figure 2-40. Connecting the power cable to the serial cable

21. Remove the ESD wristband.

Final Procedures

1. Secure the electronics sled.
2. Connect the power, turn on the cabinet, and reboot the cabinet software.
3. Log in to the cabinet (as Omnitech or other authorized User Type).
4. Proceed to "Setting Up Color Touch Cabinets" on page 6-1 to complete the installation.

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OmniRx, OmniTT, Half-Cell, Anesthesia TT

The following instructions apply to Touch & Go device installation for OmniRx, OmniTT, and Half-Cell cabinets, using manufacturing kit #14-1239 (fingerprint reader only), #14-1240 (with mag card reader), or #14-1241 (with bar code reader).

Tools Required

- T-10 Torx driver
- ESD wristband
- E-ring installation tool (recommended; not in kit)
- Scribe (or screw driver)

Kit/Parts Required

(See Figure 2-41 and Figure 2-42.)

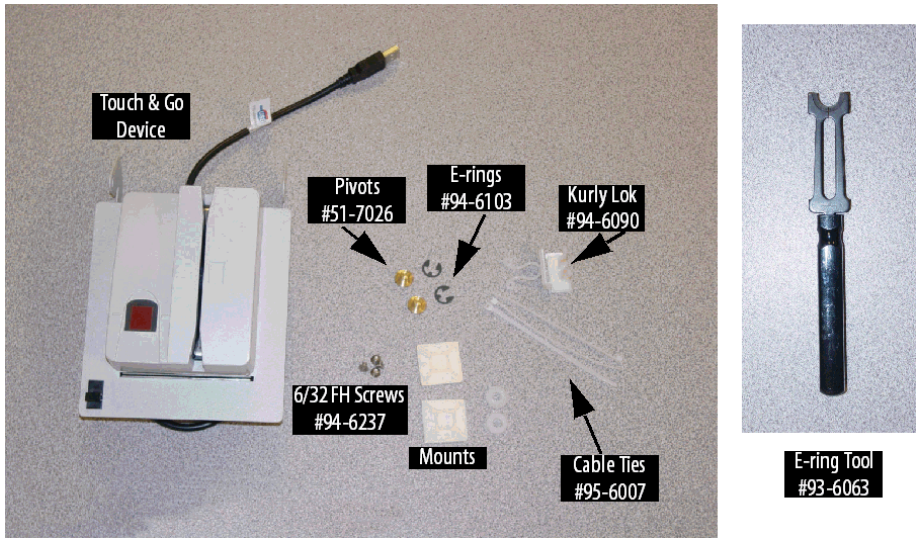

Figure 2-41. Touch & Go Kit #14-1239 (fingerprint scanner only) plus e-ring tool

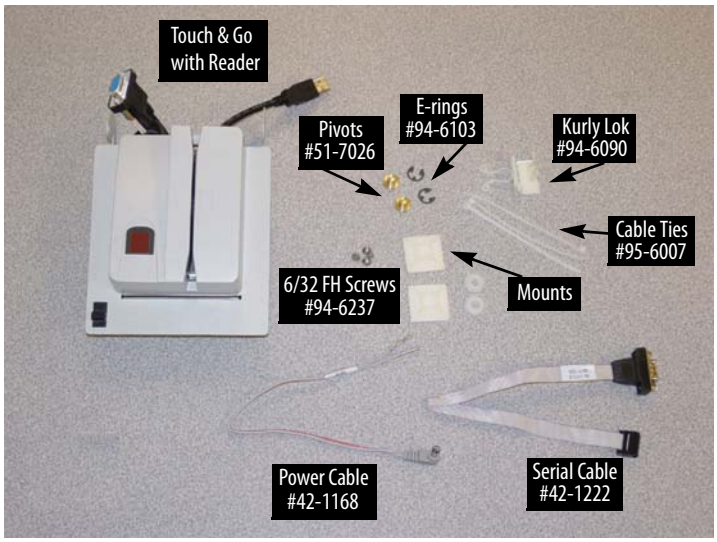

Figure 2-42. Touch & Go Kits #14-1240 (with mag card reader); #14-1241 (with bar code reader)

Preparing the Cabinet

1. Perform a graceful shutdown of the cabinet software, then power down the cabinet and disconnect the power cord.

Caution: Put on a grounded ESD wristband before working on the electronic sled.

2. Access the electronics sled.
3. Disconnect the following cables:
   - Display and touch-screen cables
   - Keyboard cable
   - Speaker cable
   - Printer cable
   - Cabinet power/communication ribbon cable
   - Fan cable (if applicable)
   - Existing card reader cable (if applicable)
4. Remove the cabinet lid and transfer it to a clean, stable workspace with the top side down.

Removing the Printer

1. Remove the printer paper.

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2. Use a scribe to rotate the e-ring on either side of the printer lid, so that the opening is in the front. See close-up (Figure 2-43) for relative position to brass pivot. The right side e-ring is not shown.

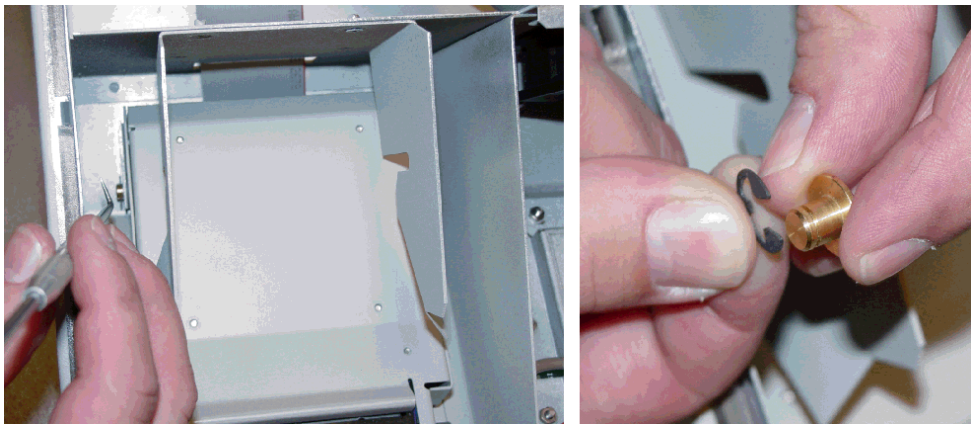

Figure 2-43. Rotating the e-rings

3. Push the e-ring off of the brass pivot on either side of the printer lid. The optional e-ring installation tool may be used for this step. (See Figure 2-44.)

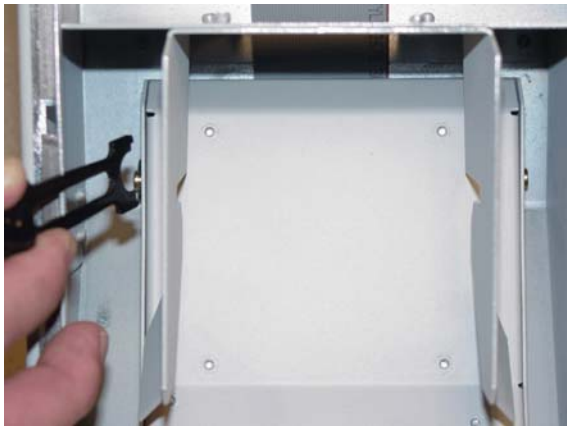

Figure 2-44. Removing the e-rings

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4. Push in the two brass pivots until they are no longer visible. (See Figure 2-45.)

Figure 2-45. Pushing in the brass pivots

5. Lift the cabinet lid slightly, then rotate the printer lid to the open position.
6. Remove the brass pivots and set them aside. (See Figure 2-46.)

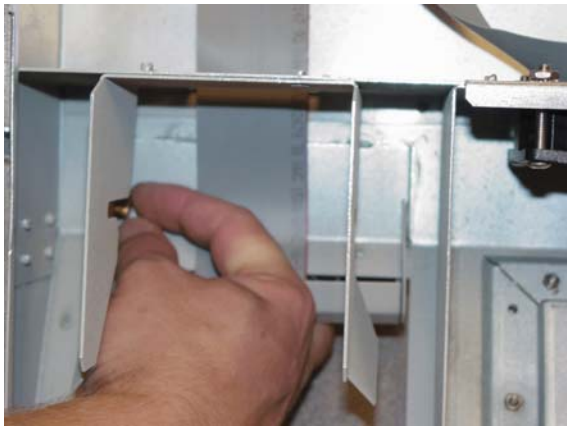

Figure 2-46. Removing the brass pivots

7. Free the printer cable from any clips.

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8. Slide the printer out and remove it from the cabinet lid. (See Figure 2-47.)

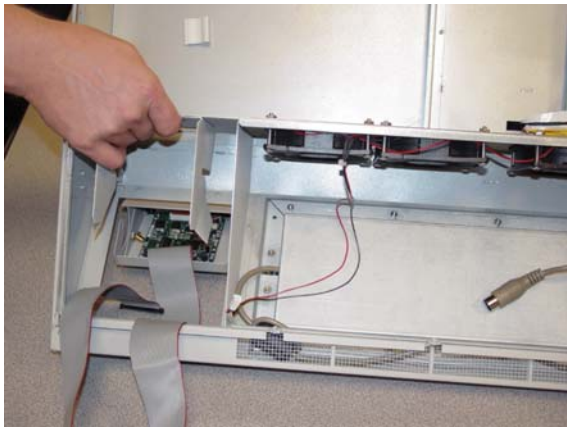

Figure 2-47. Removing the printer

Installing the Touch & Go Device

1. Use the T-10 Torx driver to remove the four 6-32 flat head screws securing the printer lid (two on either side of the printer assembly). (See Figure 2-48.)

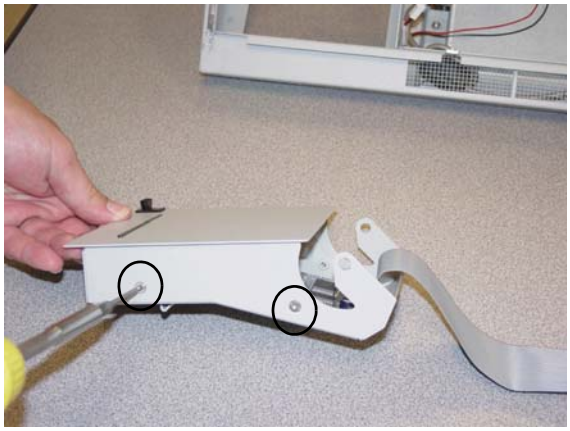

Figure 2-48. Removing the printer lid

2. Separate the lid from the printer assembly and discard the lid.

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3. Install the Touch & Go device to the printer assembly (the mounting replaces printer lid), using the four screws removed in Step 1. (See Figure 2-49.)

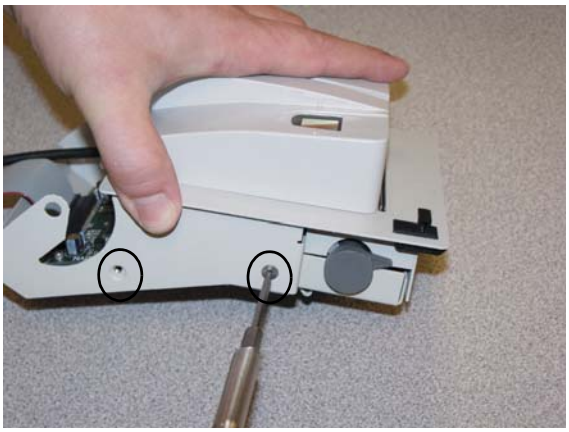

Figure 2-49. Installing the Touch & Go device

4. Thread the printer and fingerprint USB cables through the cabinet lid (from the outside in) and behind the console printer housing. (See Figure 2-50.)

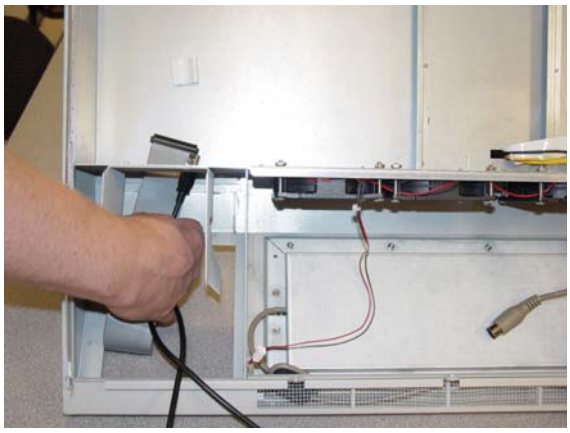

Figure 2-50. Routing the cables

5. Thread the printer and fingerprint USB cables through the cabinet lid (from the outside in).

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6. Install the printer/Touch & Go assembly to the cabinet lid, aligning it with the slots in the printer bracket, as shown. (See Figure 2-51.)

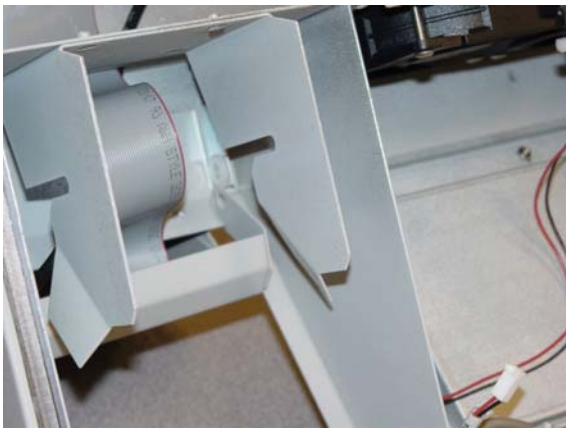

Figure 2-51. Re-installing the printer assembly with the Touch & Go device

7. Insert the two brass pivots removed earlier in the section "Removing the Printer" from step 6 on page 2-26. (See Figure 2-52.)

Figure 2-52. Installing the brass pivots

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8. Secure each brass pivot with an e-ring, using the e-ring installation tool. (See Figure 2-53.)

   Position the e-ring with the opening facing the cabinet lid (opposite of the removal procedure). See close-up in Figure 2-53 for relative position to brass pivot.

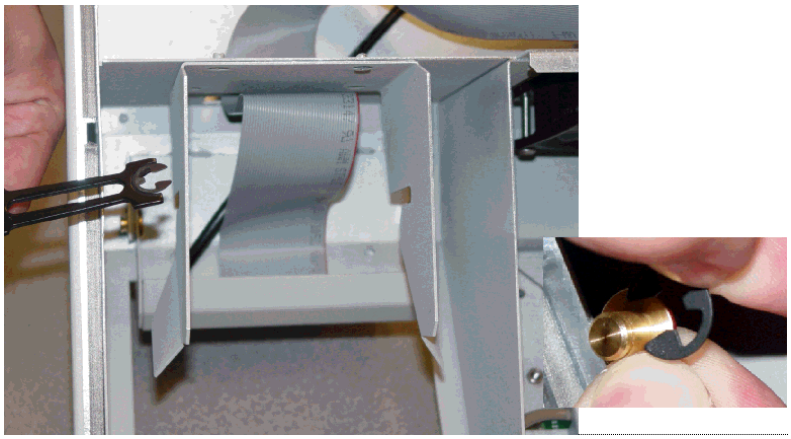

Figure 2-53. Installing the E-rings

9. Secure the printer cable into the available clip(s) on the cabinet lid.

Connecting the Cables

1. Replace the cabinet lid and reconnect the cables disconnected in the section "Preparing the Cabinet" from step 3 on page 2-24 (except the old card reader cable, if applicable).

Note: For detailed cable placement instructions, see the *Color Touch ETX Electronics Tray Installation Instructions* (Doc P/N #60-8019).

2. Connect the fingerprint USB cable to the USB port on the electronics tray. (See Figure 2-54.)

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Note: If connecting the fingerprint scanner to an EXT2 board, use the auxiliary USB ports (slots 3-6) on the side of the board. Do not use the original right angle USB ports (slots 1-2) to avoid disconnection problems.

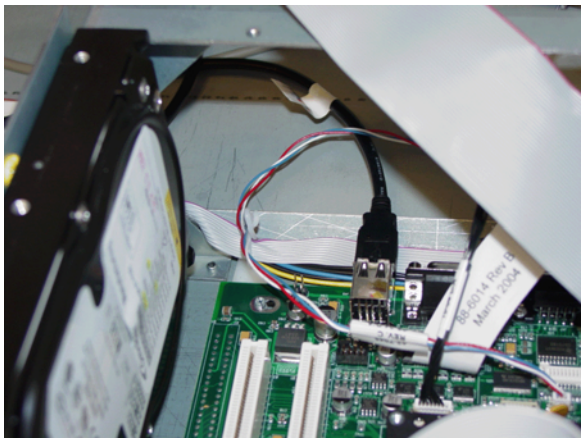

Figure 2-54. Connecting the USB Cable

Note: If installing a Touch & Go device without a card reader, skip to "Final Procedures" on page 2-32.

3. Connect the card reader serial cable to J47 on the ETX motherboard. (See Figure 2-55.)

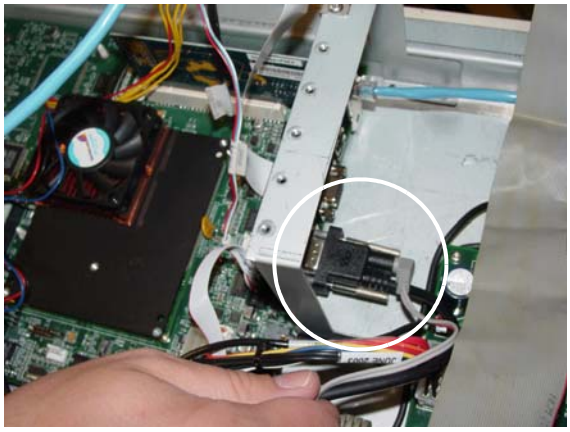

Figure 2-55. Connecting the serial cable

4. Connect the card reader power cable to the back of the card reader serial connector.

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5. Insert the card reader power cable pins into the disk drive power connector. Align the red-striped pin to the red cable and the gray-striped pin to the next spot. (See Figure 2-56.)

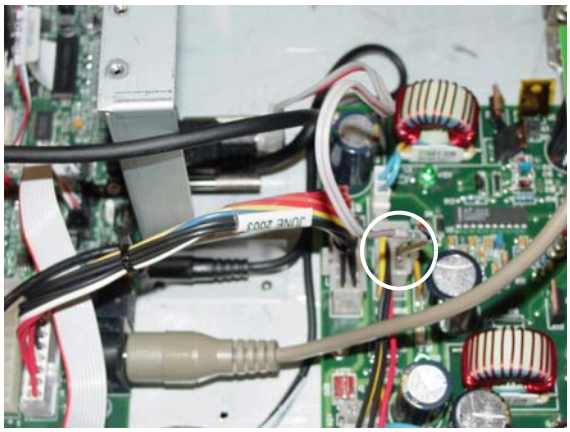

Figure 2-56. Connecting the power cable pins

6. Remove the ESD wristband.

Final Procedures

1. Secure the electronics sled.
2. Connect the power, turn on the cabinet, and reboot the cabinet software.
3. Log in to the cabinet (as Omnitech or other authorized User Type).
4. Proceed to "Setting Up Color Touch Cabinets" on page 6-1 to complete the installation.

OmniSupplier Color Touch

When upgrading an OmniSupplier Color Touch cabinet to Windows XP/ETX, a new PC box is provided. If it is ordered with Touch & Go, the PC box comes with the Touch & Go device pre-installed. In this event, the applicable PC box swap procedures are performed, followed by software configuration as described in "Setting Up Color Touch Cabinets" on page 6-1.

If the cabinet does not currently have Touch & Go, but has already been upgraded to or purchased with XP/ETX, an upgrade kit can be ordered and installed at the customer facility.

The following instructions apply to Touch & Go device installation for OmniSupplier Color Touch (CT PC box) cabinets, using manufacturing kit #14-1233 (fingerprint reader only), #14-1234 (with mag card reader), or #14-1235 (with bar code reader).

Note: These kits are intended for installation on PC boxes with an ETX motherboard. Cabinets with US Logic motherboards must be upgraded first, via PC box swap.

The instructions provided apply to all three OmniSupplier Color Touch (CT PC box) kits, with card reader-specific instructions called out as needed.

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Tools Required

- T-10 Torx driver
- ESD wristband

Kit/Parts Required

(See Figure 2-57 and Figure 2-58.)

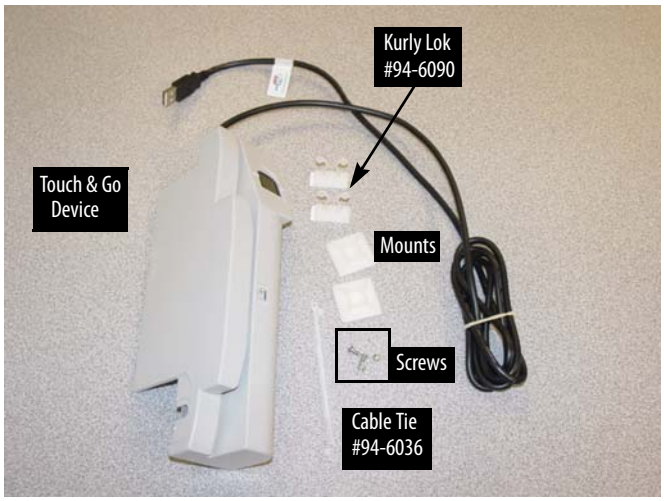

Figure 2-57. Touch & Go Kit #14-1233 (fingerprint scanner only)

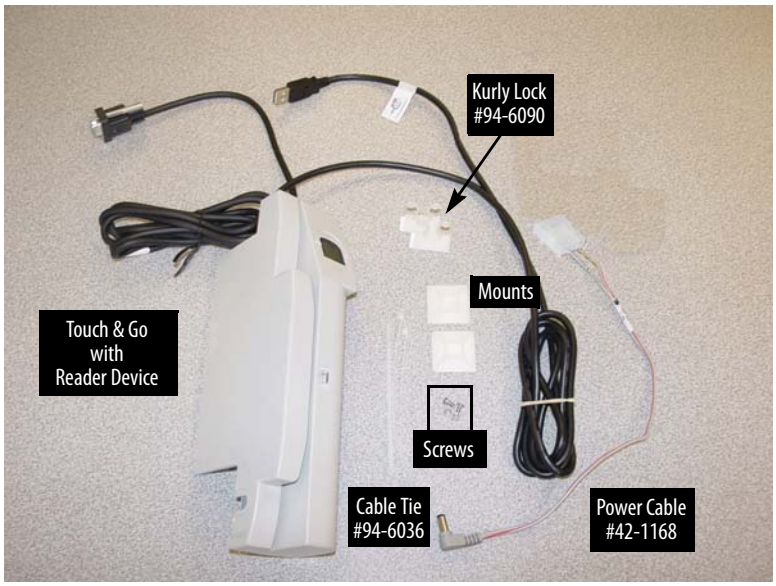

Figure 2-58. Touch & Go Kits #14-1234 (with mag card reader); #14-1235 (with bar code reader)

Preparing the Cabinet

1. Perform a graceful shutdown of the cabinet software, then power down the cabinet and disconnect the power cord.
2. Slide the PC box forward and remove the lid.

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Caution: Put on a grounded ESD wristband before working on the PC box.

Removing PC Box Bezel

1. If a card reader is currently installed, disconnect the card reader serial and power cables.
2. Use a T-10 Torx driver to remove the four screws that secure the existing PC box bezel. (See Figure 2-59.) Remove the bezel and discard it.

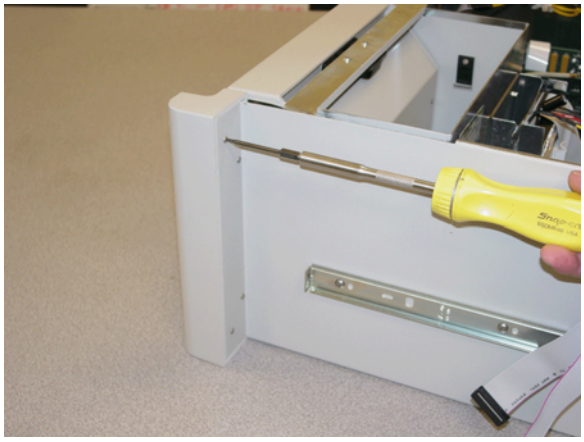

Figure 2-59. Removing the PC box bezel

Installing the Touch & Go Device

1. Align the new bezel/Touch & Go device and secure it to the PC box using the four screws previously removed. (See Figure 2-60.)

Figure 2-60. Installing new bezel

2. Route the USB cable (and card reader serial cable, if present) between the PC box sidewall and printer housing.
3. Route the cable(s) neatly in the PC box using the cable ties/kurly locks provided in the kit as needed.

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4. Connect the fingerprint scanner's USB cable to the USB port on the motherboard. (See Figure 2-61.)

Note: If connecting the fingerprint scanner to an EXT2 board, use the auxiliary USB ports (slots 3-6) on the side of the board. Do not use the original right angle USB ports (slots 1-2) to avoid disconnection problems.

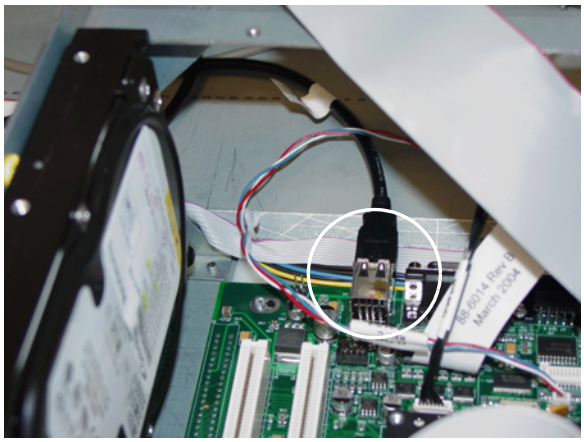

Figure 2-61. Connecting USB cable

Note: If there is no card reader with the Touch & Go device, skip to "Final Procedures" on page 2-36.

5. Connect the card reader power cable (provided in the kit) to the PC box power supply cable. (See Figure 2-62.)

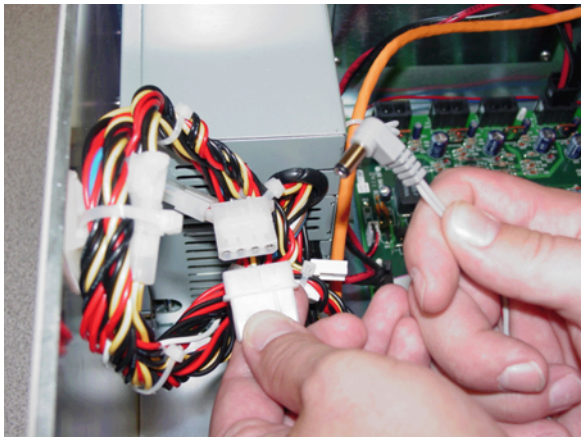

Figure 2-62. Connecting the power cable

6. Connect the card reader serial cable to the serial port.

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7. Connect the power cable to the back of the serial cable connector. (See Figure 2-63.)

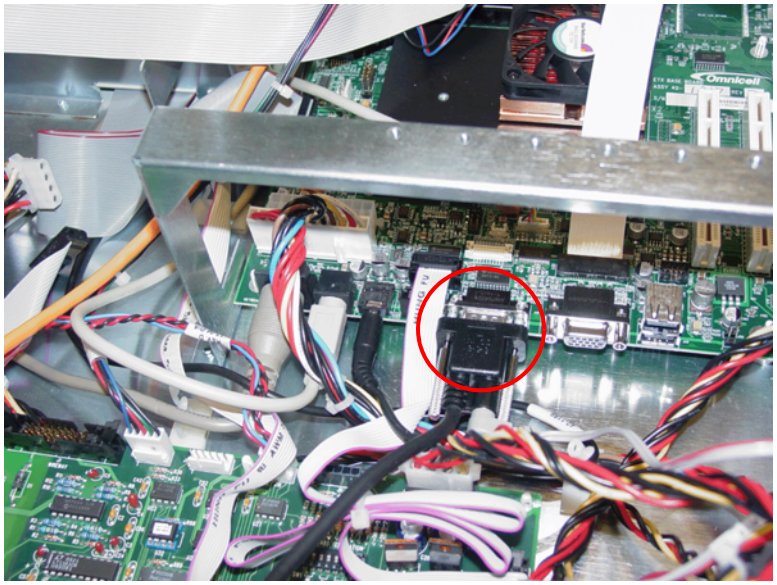

Figure 2-63. Connecting the serial cable

8. Remove the ESD wristband.

Final Procedures

1. Close the PC box lid and slide the PC box back into the cabinet.
2. Connect the power, turn on the cabinet, and reboot the cabinet software.
3. Log in to the cabinet (as Omnitech or other authorized User Type).
4. Proceed to "Setting Up Color Touch Cabinets" on page 6-1 to complete the installation.

Service Instructions

In the event of a service issue, Omnicell only supports the total replacement of the Touch & Go assembly. Refer to the installation procedures for the specific cabinet type. Perform the procedures in reverse order as needed to uninstall and replace the Touch & Go assembly.

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Retrofitting the Fingerprint Scanner with a Card Reader

This section provides configuration settings for a card reader if one is installed with the fingerprint scanner. Use the appropriate configuration setting for the specific type of card reader.

Note: This document only covers the retrofit of a card reader with a fingerprint scanner. If retrofitting either card reader (magnetic stripe or bar code) by itself, refer to document #67-2006, *Omnicell/OptiFlex Card Reader Installation and Configuration Guide*.

Functionality/Implementation Options

Software implementation for this feature requires the following general steps:

At the OmniCenter:

1. If using Card ID mode, populate the **Mag Card ID** field in the **Users** table for each applicable user. See "OmniCenter Requirements" on page 3-3.

At the Color Touch cabinet (via **Omni Config**):

1. Designate the Card Mode (**User ID** or **Card ID**).
2. If using Card Only Positive ID, enable **Card Only Positive ID** mode (**Card Only User Login/Witness** option).
3. Designate the **Card Reader Type**.
4. Enter the applicable Card Reader Settings (**Pre-skip** and **Post-skip**).

User ID/Card ID Mode

User ID Entry Mode can be set to either **User ID** (default) or **Card ID**. If set to **User ID**, the standard user ID lookup is performed.

If User ID Entry Mode is set to **Card ID**, then an alternate user ID lookup will be performed. Any user ID entered by either the keyboard or mag card reader will be checked against the Mag Card ID field in the user's database record. In this mode, the prompt Enter Card ID is displayed on all login and witness ID entry windows.

The Mag Card ID field is an alternate user ID. It can be set at the server on the user information page. This allows enhanced security where users can be restricted from knowing their mag card ID and be required to swipe their card to log in.

If a mag card is lost, a new card can be assigned and a new mag card ID value set at the server without changing the user ID.

Card Only Positive ID

If the Card Only User Login/Witness configuration option is enabled, the user logs in to the cabinet and/or provides witness information by swiping a valid user ID card. A password is then entered using the console keyboard.

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Even with this option enabled, Omnitech users can still log in manually to access cabinet administration and maintenance functions. However, they will not have access to Patient Care functions. Omnitech users must swipe a valid user ID card for witness purposes.

If the user attempts to enter a user ID via the keyboard (for login or witness), the following warning is displayed: User ID Card required for login and witness. Please use your User ID Card.

Card Reader Types

None No card reader support

Type 1 Extracts one specific part of the mag card data as the user ID. The data is broken into three parts:

- **Pre-Skip**: Specified number of characters to skip from the first card data character before reading starts.
- **Read**: The number of characters to read for the user ID.
- **Post-Skip**: Number of characters to skip after the user ID to the last card data character; this number must be greater than 0.

If the number of characters on the card equal the total number specified for **Pre-Skip**, **Read**, and **Post-Skip**, the characters read and stored are treated as the user ID. Otherwise, the card swipe is ignored.

The user ID and mag card data are fixed-width. The user ID size and the total number of characters on all cards at the site must be exactly the same.

Type 2 Uses a two-delimiter character search using the equal sign (=).

The card reader data is scanned for two instances of the equal sign (=). If two instances of the delimiter cannot be found, the card swipe is ignored.

After the second delimiter, all the characters up to the end of the card are read and stored as the user ID. One to twelve alphanumeric characters must be read (not counting colons), or the card swipe is ignored.

The user ID and mag card data do not have to be fixed-width. Because a delimiter search is used, the user ID and the total number of characters on all cards at the site can vary.

Type 3 Extracts two specific parts of the mag card data and combines them into the user ID. The data is broken into five parts:

- **Pre-Skip**: The specified number of characters to skip from the first card data character before reading starts.
- **Read**: The number of characters to read for the first part of the user ID.
- **Secondary Skip**: The number of characters to skip between reads.
- **Secondary Read**: The number of characters to read for the second part of the user ID.
- **Unused**: Any characters remaining in the card data after the Secondary Read (ignored).

The characters from the two reads are combined and treated as a user ID. The number of characters specified by **Read** and **Secondary Read** must total 12 or less.

Type 3 requires the user ID to be a fixed width. The placement of the ID is also fixed. The user ID size and the placement of data on all cards at the site must be exactly the same. However, the total width (number of characters) of the mag card data is not fixed.

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Type 4 Uses a single delimiter character search, and extracts characters in front of the delimiter. The delimiter character to search for is set by the Delimiter Character configuration option. This option defaults to the equal sign (=).

The card reader data is scanned for the first instance of the delimiter character. If the delimiter is not found, the card swipe is ignored.

- **Precede Characters**: The number of characters to read for the user ID, working backwards from the delimiter towards the start of the data.
- **Unused**: Any characters after the delimiter or extra characters between the first card data character and the last character of the reverse read.

If the number of alphanumeric characters read is less than what was specified by **Precede Characters**, the card swipe is ignored. Any extra characters at the start of the card data or after the delimiter is ignored.

Type 4 requires the user ID to be a fixed width, and the placement of the ID to be fixed with respect to the delimiter. However, the total width of the mag card data is not fixed. Data before and after the captured ID is ignored.

OmniCenter Requirements

If the card reader is set to **User ID** mode, the card swipe is validated against the user ID field of the user record in the OmniCenter **Users** table. If the user IDs and card readers are configured properly, no additional implementation steps are required at OmniCenter.

If the card reader is set to **Card ID** mode, the card swipe is validated against the Mag Card ID field of the user record in the OmniCenter **Users** table. (See Figure 3-1.) If this field is not already populated, a valid magnetic card ID must be entered for each user.

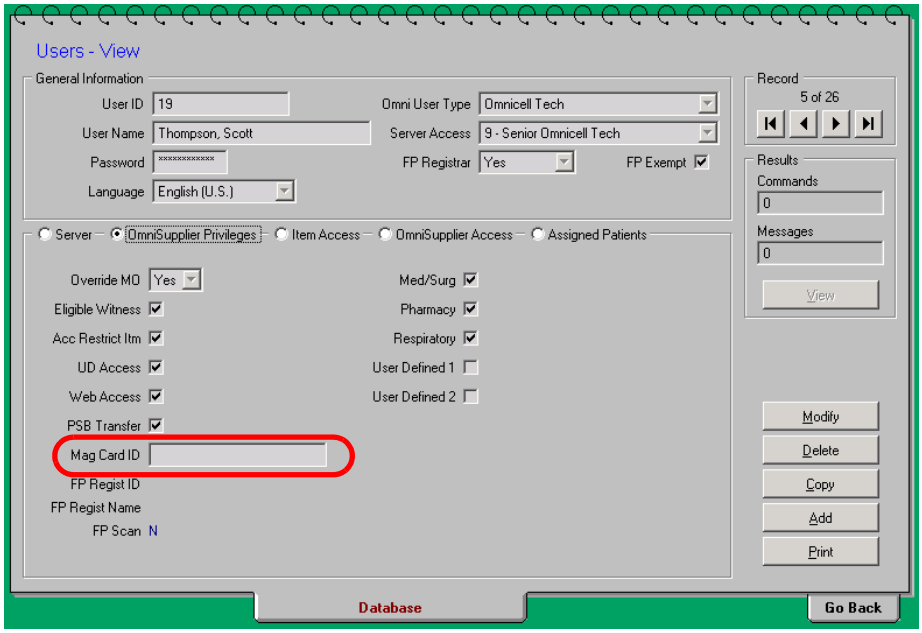

Figure 3-1. OmniCenter: Database tab, Users table—OmniSupplier Privileges, Mag Card ID field

Cabinet Configuration Options

USERS

Config Name	USERIDENTRYMODE
Menu Name	**User ID Entry Mode Options**
Description	Check card swipe against either User ID or Card ID in the Users database to verify user log-on credentials.
Values	USER_ID, CARD_ID
Default	USER_ID

CARD READER

The following configuration options are found under the **User ID Card Options** submenu:

Config Name	READERCARDREQUIRED
Menu Name	**Card Only User Login/Witness**
Description	Require User ID Card swipe for log-on and witness functions. Note: If enabled, Omnitech users can log-on manually but will not have access to the Patient Care functions; all users, including Omnitech, are required to swipe a valid User ID Card for witness purposes.
Values	Enable, Disable
Default	Disable

The following configuration options are found under the **User ID Card Options**, **Card Settings** submenu:

Config Name	READERDELIMITCHAR
Menu Name	**Card Reader Delimiter Character**
Description	Type 4 card reader: The delimiter character for which to search, such as '='.
Values	Any keyboard value; maximum length: 1
Default	=

Config Name	READERPOSTSKIPCHARS
Menu Name	**Card Reader Post-Skip Characters**
Description	Type 1 card readers: The number of characters to ignore at the end of the card
Values	0-1024
Default	0

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Config Name	READERPRESKIPCHARS
Menu Name	**Card Reader Pre-Skip Characters**
Description	For **Type 1** and **Type 3** card readers: The number of characters to skip at the start of the card data.
Values	0-1024
Default	**0**

Config Name	READERPRECEDECHARS
Menu Name	**Card Reader Precede Characters**
Description	Type 4 card reader: The number of characters to read preceding the delimiter.
Values	0-12
Default	0

Config Name	READERREADCHARS
Menu Name	**Card Reader Read Characters**
Description	Type 1 and Type 3 card readers: The number of characters to read after the first skip.
Values	0-12
Default	0

Config Name	READERSECONDREADCHARS
Menu Name	**Card Reader Secondary Read Characters**
Description	Type 3 card reader: The number of characters to read in the ID after the second skip.
Values	0-1024
Default	0

Config Name	READERSECONDSKIPCHARS
Menu Name	**Card Reader Secondary Skip Characters**
Description	Type 3 card reader: The number of characters to skip after the first read.
Values	0-1024
Default	0

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Config Name	READERTYPE
Menu Name	**Card Reader Type**
Description	Selects the card reader type to be none, standard, or custom.
Values	None, Type 1, Type 2, Type 3, Type 4
Default	None

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Planning for Touch & Go

This chapter describes the planning tasks associated with Touch & Go. Complete these tasks before configuring the OmniCenter or Color Touch cabinets.

- ☐ "Gather Account Information" on page 4-1
- ☐ "Review of Policies and Procedures" on page 4-1
- ☐ "Review New Features" on page 4-2
- ☐ "Develop a Rollout Plan" on page 4-2
  - ❍ "Discuss Fingerprint Options" on page 4-2
  - ❍ "Determine Best User Authentication Mode" on page 4-3
  - ❍ "Configure Settings Based on Best Practices" on page 4-3
  - ❍ "Demonstrate Use" on page 4-4
  - ❍ "Determine Fingerprint Registrars" on page 4-4
  - ❍ "Train Users" on page 4-4
- ☐ "Go Live" on page 4-4

Gather Account Information

Account teams that understand the customer's current setup are better suited to help migrate the customer to the new solution. Use the following chart to gather information regarding the current setup.

Gather Information About	Discussion Questions
Facility	■ Discuss Fingerprint options with the customer System Administrator. (Refer to Fingerprint Settings Considerations chart in "Appendix B: Best Practice Forms" .) ■ Determine best user authentication mode based on customer feedback. ■ Determine who will be fingerprint Registrars and what access-- Y or S. ■ Recommend that customer uses or changes to a strong user ID. ■ Consider masking user ID at log in or not. ■

Review of Policies and Procedures

Using Touch & Go can change established workflows. Recommend reviewing and updating existing policies and procedures for:

- Logging onto cabinet
- Witness for dispensing and wastes
- (Additional items, as needed)

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It is important to document how the new features workflows fold into the existing policies and procedures. Review the potential new workflow with nursing; change the polices and procedures as necessary. Address any holes in the proposed process compared to the existing workflow.

Review New Features

Touch & Go was first introduced in Omnicell 9000. For customers upgrading from a previous release, Operations should review the feature changes from the existing release.

Develop a Rollout Plan

Successful implementation is dependent on proper user training.

Plan items include the following:

- Discuss Fingerprint options with the customer System Administrator.
- Determine best user authentication mode based on customer feedback.
- Configure settings based on best practices for type of use.
  - Setting up OmniCenter
  - Configure Color Touch cabinets
- Demonstrate use based on the decided settings.
- Determine fingerprint registrars.
- Train users

Discuss Fingerprint Options

Two modes of fingerprint authentication:

- identification

  The Touch & Go (fingerprint only) has convenient login, but has a non-zero, low fail ID probability.

- verification

  A user ID plus fingerprint has practically zero fail ID probability and it is easier to manage.

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Determine Best User Authentication Mode

The user authentication modes supported by Color Touch cabinets:

User Authentication Modes	Authentication Factors	Details	System Entry Speed	Security	Fingerprint Match Strictness at Login	Administration Considerations
Touch & Go	Fingerprint Only	■ "Shortlist" ■ Requires login with User ID at each cabinet at beginning of shift	Faster	Secure	More strict	■ Failed ID prevention ■ Periodic re-registration ■ User ID login at beginning of shift, each cabinet
Two Factor w/ Fingerprint	■ User ID ■ Fingerprint	■ "Non-shortlist" ■ User ID should be hard to obtain and not be displayed	Medium	Most Secure	Less strict	Periodic re-registration
Two Factor w/ Password	■ User ID ■ Password	■ User ID should be hard to obtain and not be displayed	Slower	More Secure	N/A	■ Periodic password change ■ Risk of shared or stolen passwords

Configure Settings Based on Best Practices

Refer to Fingerprint Setup checklist in "Appendix B: Best Practice Forms" .

Setting Up OmniCenter

- Setting up fingerprint registrars
- Setting up fingerprint exempt users

Specific OmniCenter configurations are covered in "Setting Up OmniCenter" on page 5-1.

Configure Color Touch Cabinets

A number of cabinet configuration options are provided that determine the specific behavior of these functions. The desired settings for the configuration options should be discussed with the facility and set as appropriate to the facility needs. It is recommended that consistent fingerprint configuration options are maintained across all Color Touch cabinets at a facility.

Specific Color Touch configurations are covered in "Setting Up Color Touch Cabinets" on page 6-1.

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Demonstrate Use

Getting a good registration may not be easy, but in the end it helps reliability. Set user expectations:

- About 70% of users get a good registration in less than two minutes.
- The rest are more difficult to register.
  - Registration may take 3-10 minutes.
  - About two-thirds of these users will eventually get a good registration.
  - The remainder will need to log in with user ID + password (fingerprint exempt).
- Failure to Enroll rate is 5-10%.

Determine Fingerprint Registrars

1. Identify and name customer registrars.
2. Determine mode of access—Fingerprint Registrar or Supervisor
3. Train and certify registrars.
4. Verify registrars have successfully registered users.

Train Users

Depending on the new policies and procedures, at least one member of nursing should be designated as a super user that can oversee training and handle problems after implementation is complete.

New users must understand the new workflow for the features installed on the cabinets.

Success depends on proper configurations, high quality registration, and consistent placement.

Specific training recommendations are covered in "Training Customers" on page 9-1.

Go Live

Final steps for go live are:

1. Notify the users that the system is going live and that Omnicell is on site to answer any questions.
2. Begin fingerprint registration.

Implementation Specialists should be on site to answer questions and to ensure a smooth transition.

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Setting Up OmniCenter

This chapter describes the tasks necessary to configure the OmniCenter to support Touch & Go features. These tasks include:

- "Setting Up Fingerprint Registrar" on page 5-1
  - "Setting Up Global Fingerprint Registrars" on page 5-2
  - "Modifying the FP Registrar for Individual Users" on page 5-3
- "Setting Up FP Exempt" on page 5-3

Note: All screen shots are taken from the Omnicell 14.0 release.

Setting Up Fingerprint Registrar

Touch & Go implementation at OmniCenter involves the verification and/or modification of user records for proper assignment of **FP Registrar** status. Since the default **FP Registrar** settings are based on user type, the facility should determine if modifications are necessary, prior to implementation.

To support this feature, the FP Registrar field appears in the Users table indicating the fingerprint login privileges for that user. The default settings for a particular User Type can be modified globally. The settings can also be modified on the individual user record, provided the logged-in user has the necessary privileges.

The FP Registrar field determines whether the user is authorized to register other users.

- A setting of **No** indicates that the user cannot register other users.
- A setting of **Yes** indicates that the user can register other users, but must first log in to the cabinet biometrically (i.e. by providing a valid fingerprint).
- A setting of **Supervisor** indicates that the user can register others, and can log in biometrically or via keyboard entry.

The default settings for these fields are determined by User Type, as follows:

Omni User Type	FP Registrar
Anesthesia Technician	N
Anesthesiologist	N
Certified Nurse Assistant	N
Head Nurse	Y
LPN	N
Material Manager	Y
Regular Nurse	N
Regular Nurse B	N
Omnicell Tech	S
Out Patient Rehabilitation Specialist	N

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Omni User Type	FP Registrar
Pharmacist A	S
Pharmacist B	N
Pharmacy Technician A	N
Pharmacy Technician B	N
Respiratory Therapist	N
Restock Tech	N
Temp LPN	N
Temporary Nurse	N

Key: N (No); Y (Yes); S (Supervisor)

Setting Up Global Fingerprint Registrars

The default settings for a particular User Type can be modified globally. The FP Registrar field determines whether the user is authorized to register other users. (See Figure 5-1.)

- A setting of **No** indicates that the user cannot register other users.
- A setting of **Yes** indicates that the user can register other users, but must first log in to the cabinet biometrically (i.e. by providing a valid fingerprint).

1. Select **Administrative** tab > **Global Modify** type > **Global Modify User Records** option.
2. Select Omni User Type from the drop down list.
3. Modify FP Registrar to **Y** (yes).
4. Click **Finish**.

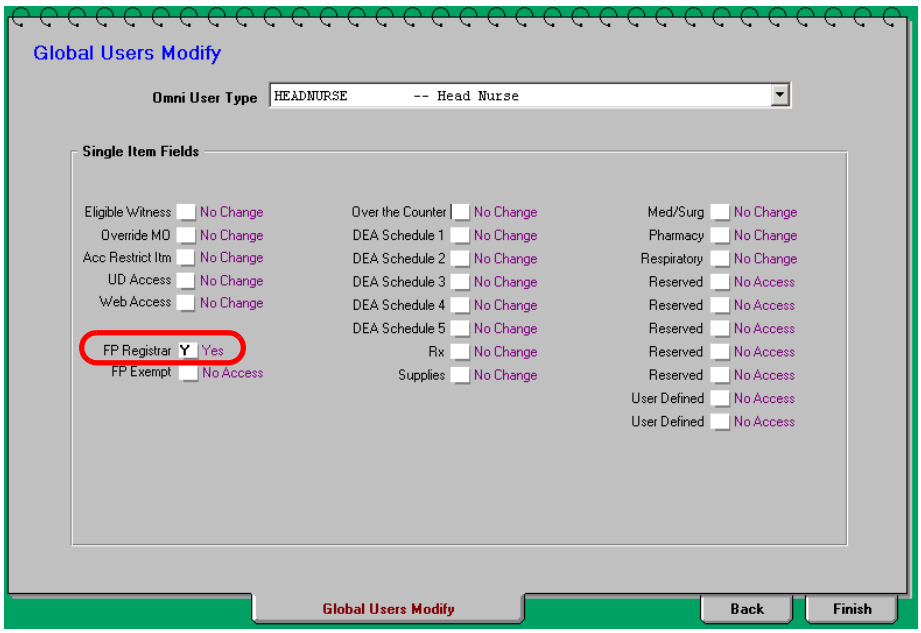

Figure 5-1. OmniCenter: Administration tab, Global Modify type, User records—FP Registrar field

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Modifying the FP Registrar for Individual Users

Modify or verify settings for the desired FP Registrars in the OmniCenter user database. This step may include downgrading or upgrading **FP Registrar** status, as needed, for various users.

This field can be altered by any user who has access to the Users table, and who has equal or greater FP Registrar access rights than the user they are registering or modifying. For example, a user with **Supervisor** rights can modify all other FP Registrar types. (See Figure 5-2.)

1. Select the **Database** tab, **Users** table.
2. Select the applicable user record, then click **Modify**.
3. Change the **FP Registrar** field to **Yes**, **No**, or **Supervisor** as needed.
4. Click **Save** to record changes.
5. Repeat steps 3-6 for additional users.

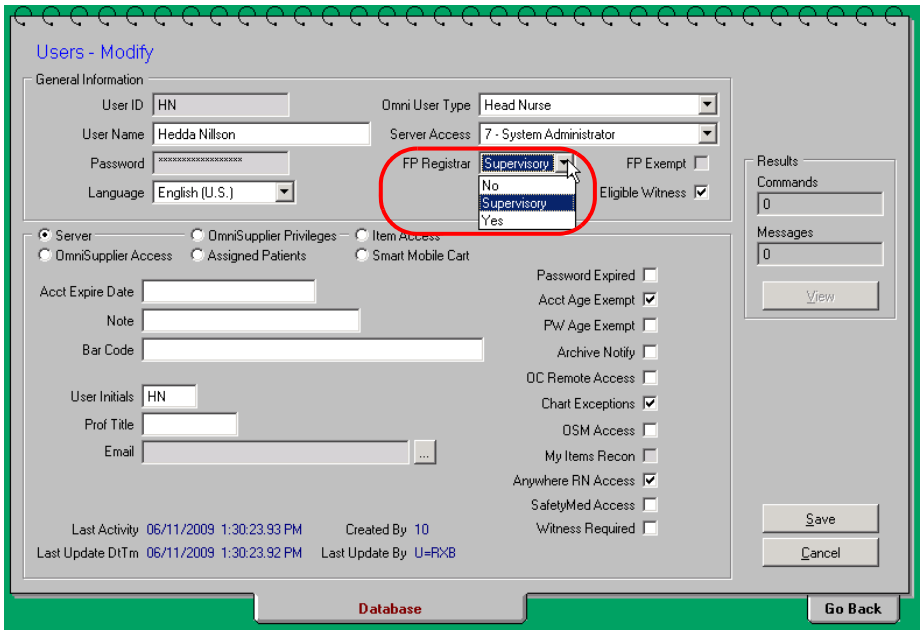

Figure 5-2. OmniCenter: Database tab, User table, user record—FP Registrar field

Setting Up FP Exempt

Some users are not able to achieve the minimum registration quality. Those users should be flagged as fingerprint-exempt. Determine if any users require **FP Exempt** status; if so, modify the applicable User records. This determination must be made by the facility.

To support this feature, the FP Exempt field appears in the Users table. The FP Exempt field determines whether the user is exempt from the fingerprint login requirements. (See Figure 5-3.) An exemption can be made, for example, if a particular user is physically unable to provide a fingerprint scan of acceptable quality. FP Exempt status is only relevant if fingerprint is required for password at the cabinet level.

Note: Exempt users may require a witness at login or when a password is required to access medications.

The default setting for this field is unchecked (i.e. set to **No**) for all User Types. Any user with access to the Users table who is also designated as **Supervisor** in the FP Registrar field can change the FP Exempt setting for another user. FP Exempt users can register and use a fingerprint, but are not required to do so. Only users with FP Registrar status of **Yes** or **Supervisor** can serve as a login witness for FP Exempt users.

1. Select the **Database** tab, **Users** table.
2. Select the applicable user record, then click **Modify**.
3. Select the **FP Exempt** field to exempt the user from the fingerprint login requirement. De-select the field to remove the exemption. The field is de-selected (unchecked) by default for all user types.
4. Click **Save** to record changes.

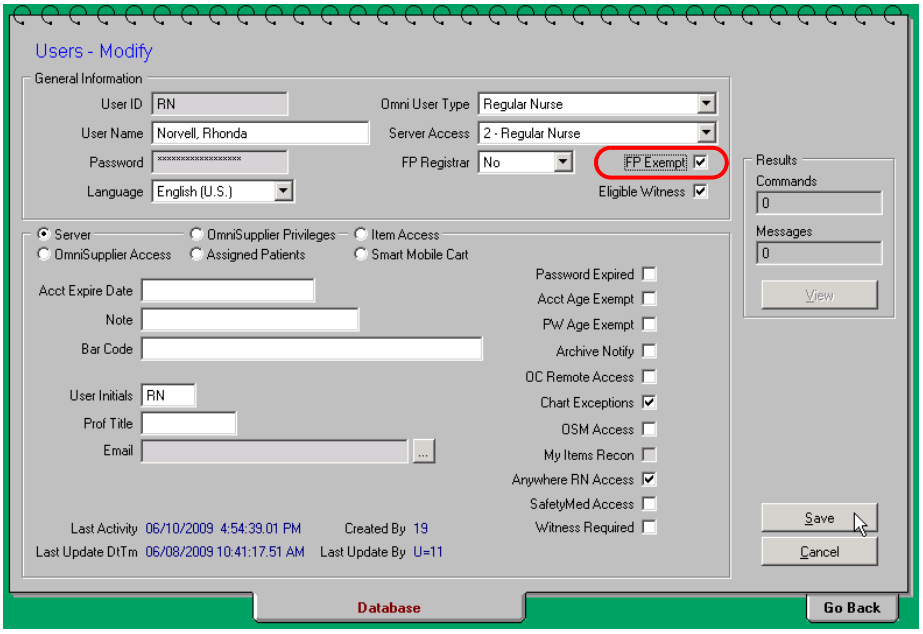

Figure 5-3. OmniCenter: Database tab, User table, user record—FP Exempt field

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Setting Up Color Touch Cabinets

This chapter describes the tasks necessary to configure the software for Color Touch cabinets. Use the tasks in this chapter to configure the cabinet specifically by cabinet features or, if you are familiar with the options already, use the list of all the features in the order presented on the cabinet.

The tasks in this chapter include:

- "Configure Cabinets Based on Best Practice" on page 6-2
  - "Enable Touch & Go" on page 6-2
  - "Registration Configurations" on page 6-2
    - "Registration Quality Enforced" on page 6-2
    - "Registration Quality" on page 6-3
    - "Minimum Match for Registration" on page 6-3
  - "Shortlist Configurations" on page 6-3
    - "Inactivity Aging" on page 6-4
    - "Minimum Match for Short List" on page 6-4
    - "Short List Max Size" on page 6-5
  - "Non-Shortlist Configurations" on page 6-5
    - "Minimum Match with User ID" on page 6-5
    - "Match Sensitivity" on page 6-6
  - "Other Modifications" on page 6-7
    - "Exempt User Configurations" on page 6-7
    - "Fingerprint Instructions" on page 6-7
    - "Fingerprint Help" on page 6-8
    - "Password Entry" on page 6-9
  - "Sensor Health Diagnostics" on page 6-10
  - "Other Configurations" on page 6-11
- "Fingerprint Activity" on page 6-12

Note: All screen shots are taken from the Omnicell 14.0 release.

The Touch & Go fingerprint scanner is used at the Color Touch cabinet for the purposes of logging in, witnessing transactions, and registering or re-registering users' fingerprint scans. A number of cabinet configuration options are provided that determine the specific behavior of these functions. The desired settings for the configuration options should be discussed with the facility and set as appropriate to the facility needs. It is recommended that consistent fingerprint configuration options are maintained across all Color Touch cabinets at a facility.

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Configure Cabinets Based on Best Practice

The following configuration settings are based on best practices.

Enable Touch & Go

The configuration option Fingerprint Scanner Support must be **Enabled** for each cabinet using Touch & Go for all features to take effect.

[FINGERPRINT]

Option Name:	FINGERPRINTSUPPORT
Option Label:	**Fingerprint Scanner Support**
Description:	Enables or disables the support of the fingerprint scanner hardware. If not enabled, any fingerprint scanner hardware will be ignored and there will be no functional changes with respect to this feature. If enabled, this feature will be supported. Note working hardware will be required for the functionality of this feature.
Values:	Enable; Disable
Default:	Disable
Implementation:	Set to **Enable** for each cabinet using Touch & Go

Registration Configurations

The following configuration settings are based on best practices. These configuration settings enforce consistency and also affect login.

Registration Quality Enforced

If Fingerprint Registration Quality Enforced is enabled, only those users that meet the minimum registration quality are added to the short list or can use fingerprint in place of password.

[FINGERPRINT]

Option Name:	FINGERPRINTQUALITYENFORCED
Option Label:	**Fingerprint Registration Quality Enforced**
Description:	If enabled, users must have a minimum fingerprint registration quality to utilize fingerprint for login and witness. The minimum quality is determined by the configuration option Fingerprint Registration Quality. Users that do not meet the minimum quality will not be allowed to use a fingerprint for short list login, login with ID and fingerprint, or witness. When this value is changed the short list will be re-loaded based on the new value.
Values:	Enable; Disable
Default:	Disable
Implementation:	Set to **Enable** for each cabinet using Touch & Go.

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Registration Quality

[FINGERPRINT]

Option Name:	FINGERPRINTREGTHRESHOLD
Option Label:	**Fingerprint Registration Quality**
Description:	Lower limit for fingerprint quality. If any user has a fingerprint quality less than this value at the time of fingerprint registration, that user may be required to re-register. If the configuration option Fingerprint Registration Quality Enforced is enabled, users are required to achieve the registration quality in order to use a fingerprint for login or witness.
Values:	50-100
Default:	70
Implementation:	Verify setting of **70** for each cabinet using Touch & Go.

Minimum Match for Registration

The minimum match score required for registration fingerprint comparisons is configurable. A higher minimum match score requires a more detailed match between two compared fingerprints.

At time of registration, the user is required to submit four matching fingerprints. Increasing the minimum match score makes matching more difficult. A lower match score setting makes it easier to register but the registration print may not be as reliable.

[FINGERPRINT]

Option Name:	FINGERPRINTREGMATCH
Option Label:	**Fingerprint Minimum Match for Registration**
Description:	The minimum match score for a positive identification between the scans required for registration.
Values:	3-30
Default:	3
Implementation:	Set to **7** for each cabinet using Touch & Go.

Shortlist Configurations

A fingerprint scan does not replicate entering the user ID. Users must first enter a user ID via keyboard entry, at least for initial login. If enabled, the user is then added to the cabinet's short list for quick entry and can log in using only a fingerprint, provided that user has a fingerprint registered.

The entire short list is searched for multiple matches in order to screen for failed identifications. This search is enabled automatically and cannot be disabled.

If more than one match is found, this indicates a potential failed identification and the login is denied. Comparisons against the short list stop as soon as a second match is found. During registration when more than one fingerprint match is found against the short list, a warning is displayed.

When needed, the short list may be reloaded by deleting the short list from memory and restoring it from the Users table. A short list reload is triggered at:

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- Startup
- When Fingerprint Scanner Support is enabled/disabled
- When the value for Fingerprint Short List Max Size is changed
- When the value for Fingerprint Inactivity Aging is changed
- When the value for Fingerprint Registration Quality is changed (only if Fingerprint Registration Quality Enforced is enabled)
- When the value for Fingerprint Registration Quality Enforced is changed

These configuration settings can be changed at the cabinet or OmniCenter in order to trigger the short list reload.

Midnight processing includes a full software reset of the fingerprint device during which fingerprint support is shut down and then re-initialized. There is no change to the short list during the reset.

Inactivity Aging

The short list is aged based on a period of inactivity, controlled by the configuration option Fingerprint Inactivity Aging. A user is cut from the short list if the period of time since a user's last login is greater than the value of Fingerprint Inactivity Aging. A setting of **0** (zero) disables the population of the short list. Aging takes place once every hour and the system automatically ages users from the short list as needed. Fingerprint Inactivity Aging works in conjunction with, and at the same time as, the limit of Fingerprint Short List Max Size.

[FINGERPRINT]

Option Name:	FINGERPRINTAGING2
Option Label:	**Fingerprint Inactivity Aging**
Description:	The maximum period of inactivity, in hours, that a user will be kept on the short list after initial daily use. Users will be aged off the short list if they have not had any login activity, via keyboard, card, and/or fingerprint, within this time. A value of 0 will disable the short list. When this value is changed the short list will be re-loaded based on the new value.
Values:	0-720
Default:	96
Implementation:	If not using short list, set to **0**; If using a short list, set to **16** for each cabinet using Touch & Go.

Minimum Match for Short List

The minimum match score required for Short list login/witness fingerprint comparisons is configurable. A higher minimum match score requires a more detailed match between two compared fingerprints. Minimum match score is enabled automatically and cannot be disabled.

If any of the match attempts do not meet the minimum match score, that scan is treated as a mismatch. By increasing the minimum match score, the chance of a false accept (failed identification) is reduced. However, at the same time, the chance of a false reject (failed login or registration) is increased.

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[FINGERPRINT]

Option Name:	FINGERPRINTSHORTMATCH
Option Label:	**Fingerprint Minimum Match for Short List**
Description:	The minimum match score for a positive identification between a scanned fingerprint and a registered fingerprint on the short list.
Values:	3-30
Default:	7
Implementation:	Verify configuration setting is **7** for each cabinet using Touch & Go.

Short List Max Size

The short list/quick entry option is controlled by the Fingerprint Short List Max Size configuration option. A setting of **0** (zero) disables the short list. If the cabinet is disabled for quick entry, the user ID must be keyed-in at each login.

After initial use, the user is added to the short list. After a user is added to the short list, the last activity time stamp for that user is refreshed on the short list. The most recent active user moves to the top of the short list.

If the addition will exceed the max size, the user at the bottom of the short list, with the least recent activity time stamp, is removed from the list. Also, when a user is deleted from OmniCenter, that user is removed from the short list.

[FINGERPRINT]

Option Name:	FINGERPRINTSHORTLISTSIZE
Option Label:	**Fingerprint Short List Max Size**
Description:	The maximum number of users that will be kept on the short list after initial use. Users will be aged off the short list, based on least recent activity, only if this value is exceeded by new user login activity. A value of 0 will disable the short list. When this value is changed, the short list will be re-loaded based on the new value. Increasing this value may slow down the response time for quick login.
Values:	0-500
Default:	200
Implementation:	Set to **30** for each cabinet using Touch & Go.

Non-Shortlist Configurations

Minimum Match with User ID

The minimum match score required for login/witness with user ID fingerprint comparisons is configurable. A higher minimum match score requires a more detailed match between two compared fingerprints. Minimum match score is enabled automatically and cannot be disabled.

If the system finds no fingerprint match, the system prompts the user to enter their user ID. Using this user ID, the system retrieves the user's registered fingerprint and attempts a match against each of the scanned prints presented during each scan attempt. If a match is found against any submitted print, the system grants access to the user.

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If any of the match attempts do not meet the minimum match score, that scan is treated as a mismatch. By increasing the minimum match score, the chance of a false accept (failed identification) is reduced. However, at the same time, the chance of a false reject (failed login or registration) is increased.

[FINGERPRINT]

Option Name:	FINGERPRINTIDMATCH
Option Label:	**Fingerprint Minimum Match with User ID**
Description:	The minimum match score for a positive identification between a scanned fingerprint and a registered fingerprint when the user ID is also provided.
Values:	3-30
Default:	3
Implementation:	Verify configuration setting is **3** for each cabinet using Touch & Go.

Match Sensitivity

[FINGERPRINT]

Option Name:	FINGERPRINTSECURITYLEVEL
Option Label:	**Fingerprint Match Sensitivity**
Description:	The fingerprint matching sensitivity level. A lower number results in easier matches at the cost of a higher chance of false-positive. A higher number uses more stringent matching rules resulting in harder matches but with less chance of false-positive.
Values:	1-5
Default:	3
Implementation:	Set to **4** for each cabinet using Touch & Go.

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Other Modifications

The following configuration settings are based on best practices.

Exempt User Configurations

[FINGERPRINT]

Option Name:	FINGERPRINTDAILYTIME
Option Label:	**Exempt User Daily Use Time**
Description:	The length of time in hours that a fingerprint exempt user will be able to login without a witness after initial witness log-on. Note this time will be fixed, starting from the time of initial witness log-on, and will not be extended based on subsequent access. This only applies if a user requires an exempt log-on witness. A value of 0 will indicate such a witness is required at each log-on.
Values:	0-24
Default:	8
Implementation:	Set to **16** for each cabinet using Touch & Go.

Option Name:	FINGERPRINTEXEMPTWITNESS
Option Label:	**Fingerprint Exempt Users Require Witness**
Description:	If enabled, any user designated as exempt from the fingerprint requirement will require a witness as part of that users initial daily log-on. This is ignored if Fingerprint Required for Password is not enabled.
Values:	Enable; Disable
Default:	Disable
Implementation:	Verify setting of **Disable** for each cabinet using Touch & Go.

Fingerprint Instructions

A fingerprint usage instructions window can be displayed prior to the registration process, allowing new users to become familiar with the device and practice proper finger placement.

[FINGERPRINT]

Option Name:	FINGERPRINTINSTRUCTIONS
Option Label:	**Fingerprint Instructions**
Description:	Show fingerprint usage instructions prior to registration. If disabled the fingerprint usage instructions will not be shown automatically prior to registration. However, the fingerprint usage instructions can always be accessed from the fingerprint practice and help screen.
Values:	Enable; Disable
Default:	Enable
Implementation:	Set to **Disable** for each cabinet using Touch & Go.

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Fingerprint Help

If fingerprint login fails after a configurable number of tries, the Fingerprint Help window (see Figure 6-1) is displayed. The Fingerprint Help window is controlled by the Fingerprint Login Attempts Before Help configuration option. A setting of **0** (zero) disables the Fingerprint Help window during login functions.

Note: The values and defaults of this configuration are different depending on the software version installed.

[FINGERPRINT]

Option Name:	FINGERPRINTTRAININGTHRESHOLD
Option Label:	**Fingerprint Login Attempts Before Help**
Description:	Version 5.10.x Number of failed log-on attempts before the user is shown the fingerprint help screen. The user will automatically be brought to the fingerprint help screen from log-on if the number of failed fingerprint log-on attempts reaches this number. Each scan must be within 7 seconds of each other in order to count. 0 disables fingerprint help at log-on.
Values:	0-10
Default:	6
Implementation:	Set to **4** for each cabinet using Touch & Go.

Option Name:	FINGERPRINTTRAININGTHRESHOLD
Option Label:	**Fingerprint Login Attempts Before Help**
Description:	Version 5.8.x and 5.9.x Number of failed log-on attempts before the user is shown the fingerprint help screen. The user will automatically be brought to the fingerprint help screen from log-on if the number of failed fingerprint log-on attempts reaches this number. Each scan must be within 7 seconds of each other in order to count. 0 disables fingerprint help at log-on.
Values:	0-5
Default:	3
Implementation:	Set to **4** for each cabinet using Touch & Go.

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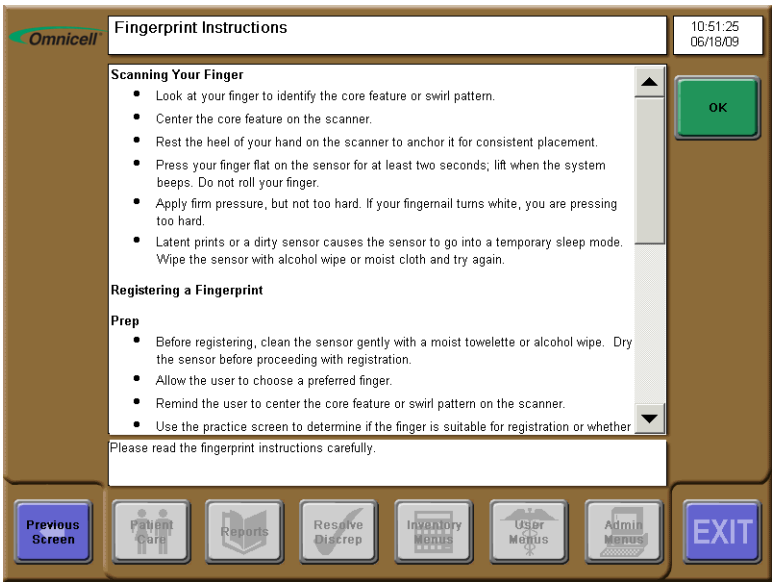
Omnicell
Fingerprint Instructions
10:51:25
06/18/09
Scanning Your Finger
Look at your finger to identify the core feature or swirl pattern.
Center the core feature on the scanner.
Rest the heel of your hand on the scanner to anchor it for consistent placement.
Press your finger flat on the sensor for at least two seconds; lift when the system beeps. Do not roll your finger.
Apply firm pressure, but not too hard. If your fingernail turns white, you are pressing too hard.
Latent prints or a dirty sensor causes the sensor to go into a temporary sleep mode. Wipe the sensor with alcohol wipe or moist cloth and try again.
Registering a Fingerprint
Prep
Before registering, clean the sensor gently with a moist towelette or alcohol wipe. Dry the sensor before proceeding with registration.
Allow the user to choose a preferred finger.
Remind the user to center the core feature or swirl pattern on the scanner.
Use the practice screen to determine if the finger is suitable for registration or whether
OK
Please read the fingerprint instructions carefully.
Previous Screen
Patient Care
Reports
Resolve Discrep
Inventory Menus
User Menus
Admin Menus
EXIT

Figure 6-1. Color Touch: Fingerprint Help

Password Entry

Depending on the cabinet configuration settings for a given User Type, password entry may or may not be required. If password entry is not required, User ID entry or fingerprint scan (if the user is on the short list) immediately grants access to the cabinet.

If password entry is required, facilities have the option to require a fingerprint scan by enabling the Fingerprint Required for Password option. The following users can always log in via keyboard entry, regardless of this setting:

- FP Exempt: Anyone designated as FP Exempt in the User record has the option to log in via fingerprint, but is not required to do so. Depending on cabinet configuration settings, FP Exempt users may be required to have a witness at the initial daily login. Only users with an FP Registrar value of **Y** (Yes) or **S** (Supervisor) are eligible to witness the login of a fingerprint exempt user.
- FP Registrar—Supervisor: Anyone with an FP Registrar setting of **S** (Supervisor) has the option to log in via fingerprint or keyboard entry. However, if fingerprint required... is enabled, and the user logs in via keyboard, only **User Menu** is accessible.
- Omnitech Users: Anyone with a User Type of **Omnitech** has the option to login via fingerprint or keyboard entry. However, if fingerprint required... is enabled, and the user logs in via keyboard, **Patient Care** is disabled.

If the Fingerprint Required for Password configuration option is enabled, a valid fingerprint scan is required for all witnesses (including FP Registrars) except those designated as FP Exempt. When witnessing a transaction, FP Exempt users have the option to enter a user ID and password via keyboard entry or to provide a fingerprint.

Reset or Expired Password When a user's password expires or is reset, the user is prompted to enter a new password via keyboard entry. If the Fingerprint Required for Password configuration option is enabled, and a fingerprint was not provided at login (FP Registrar or Omnitech), the user is prompted for a valid fingerprint scan. Exempt users do not require a fingerprint scan to change passwords.

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If the Fingerprint Required for Password configuration option is disabled, a fingerprint is not required for password change for any user.

[FINGERPRINT]

Option Name:	FINGERPRINTREQUIRED
Option Label:	**Fingerprint Required for Password**
Description:	When enabled a successful fingerprint scan and verification will be required for all log-on and witness actions. Some users will be able to log-on to the system with limited functionality or as fingerprint exempt users.
Values:	Enable; Disable
Default:	Disable
Implementation:	Set to **Disable** for each cabinet using Touch & Go.

Sensor Health Diagnostics

The fingerprint module automatically performs a sensor health test each time the device is initialized. This occurs automatically during startup, fingerprint support enabling, midnight processing, fingerprint reset, or plug and play handling of the device. The system maintains the results of the last fingerprint sensor health check.

Note: These configurations are for engineering diagnostics only.

[FINGERPRINT]

Option Name:	STAGE1THRESHOLDMASK
Option Label:	**Stage 1 Sensor Health Threshold Mask**
Description:	Numeric mask indicating the allowed sensor health thresholds for sensor health stage 1. Stage 0, new device (not configurable): normal or standard operation Stage 0 < Sensor health errors <=stage 1: proactive caution/warning, but no action needed on user part. Stage 1 < Sensor health errors <=stage 2: warning on health, recommend service in convenient timeframe. Stage 2 < Sensor health errors: device failure, recommend sensor change ASAP.
Values:	0-268435455
Default:	2060
Note:	Value is an encoded 4 byte mask. The default value corresponds to: ■ bad pixels: 12 ■ adjacent pixels: 8 ■ bad rows: 0 ■ bad columns: 0

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Option Name:	STAGE2THRESHOLDMASK
Option Label:	**Stage 2 Sensor Health Threshold Mask**
Description:	Numeric mask indicating the allowed sensor health thresholds for sensor health stage 2. Stage 0, new device (not configurable): normal or standard operation Stage 0 < Sensor health errors <=stage 1: proactive caution/warning, but no action needed on user part. Stage 1 < Sensor health errors <=stage 2: warning on health, recommend service in convenient timeframe. Stage 2 < Sensor health errors: device failure, recommend sensor change ASAP.
Values:	0-268435455
Default:	7710
Note:	Value is an encoded 4 byte mask. The default value corresponds to: ■ bad pixels: 30 ■ adjacent pixels: 30 ■ bad rows: 0 ■ bad columns: 0

Other Configurations

The following cabinet configuration options are viewable in the **Admin Menus**, **Omni Config** section. These settings can be verified or modified either at the cabinet or at the OmniCenter.

[FINGERPRINT]

Option Name:	FINGERPRINTDEBUGUSEONLY
Option Label:	**Fingerprint Debug Use Only**
Description:	For Omnicell personnel use only. For Engineering troubleshooting only.
Values:	Enable; Disable
Default:	Enable

Option Name:	FINGERPRINTLOGINATTEMPTSTHRESHOLD
Option Label:	**Short List Attempts Before UserID Prompt**
Description:	Number of Fingerprint login attempts before text UserID prompt.
Values:	0-10
Default:	3
Implementation:	Confirm value setting of 3 for all cabinets.

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Option Name:	FINGERPRINTVALIDATION
Option Label:	**Validate Fingerprint at Registration**
Description:	Enable Fingerprint validation at registration time. Default is Disable.
Values:	Enable; Disable
Default:	Enable

Fingerprint Activity

Fingerprint Activity Availability is enabled automatically and cannot be disabled.

1. Users who are supervisor fingerprint registrars at the OmniCenter can press **Fingerprint Activity** to access the Fingerprint Activity window from the User Menu. (See Figure 6-2.)

Figure 6-2. Color Touch: User Menu—Supervisor

The Fingerprint Activity window displays the contents of the short list, which contains the following information (see Figure 6-3):

- Number of registered Touch & Go users
- Current setting for Fingerprint Short List Max Size
- Current setting for Fingerprint Inactivity Aging
- Current short list information
  - User ID
  - Each user's fingerprint registration quality
  - Total number of fingerprint uses for that user that day
  - Last login activity date/time (keyboard or fingerprint login)

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- Usage statistics for the specified time period
  - Total number of fingerprint users
  - Average sessions per user
  - Registrations attempted
  - Registration failed attempts
  - Logins attempted
  - Login failed matches
- Help text

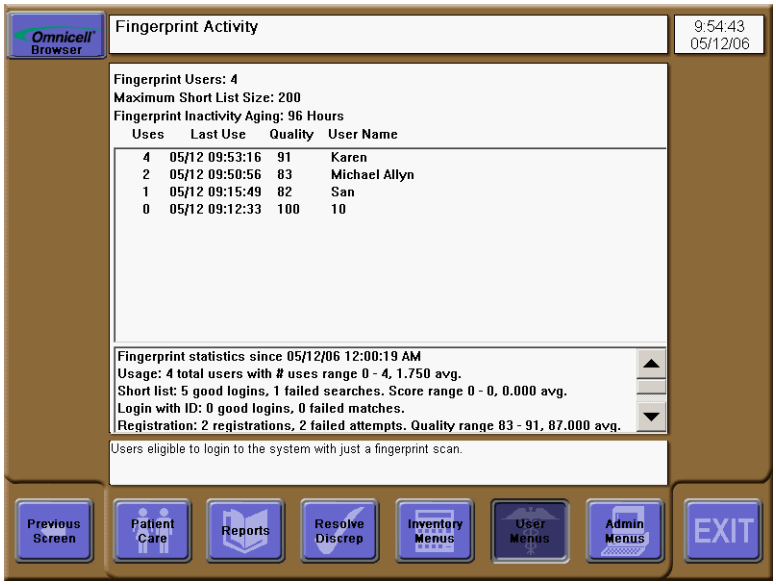
Omnicell Browser
Fingerprint Activity
9:54:43
05/12/06
Fingerprint Users: 4
Maximum Short List Size: 200
Fingerprint Inactivity Aging: 96 Hours
Uses Last Use Quality User Name
4 05/12 09:53:16 91 Karen
2 05/12 09:50:56 83 Michael Allyn
1 05/12 09:15:49 82 San
0 05/12 09:12:33 100 10
Fingerprint statistics since 05/12/06 12:00:19 AM
Usage: 4 total users with # uses range 0 - 4, 1.750 avg.
Short list: 5 good logins, 1 failed searches. Score range 0 - 0, 0.000 avg.
Login with ID: 0 good logins, 0 failed matches.
Registration: 2 registrations, 2 failed attempts. Quality range 83 - 91, 87.000 avg.
Users eligible to login to the system with just a fingerprint scan.
Previous Screen
Patient Care
Reports
Resolve Discrep
Inventory Menus
User Menus
Admin Menus
EXIT

Figure 6-3. Color Touch: Fingerprint Activity window

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Fingerprint Registration

Users only need to register fingerprints at one cabinet. The encrypted numeric fingerprint code is sent to all appropriate cabinets via OmniCenter.

This chapter describes the tasks necessary to register fingerprints at a Color Touch cabinet. The tasks in this chapter include:

- ☐ "Prepare for Registration" on page 7-1
- ☐ "Register Fingerprints" on page 7-1
  - ❍ "Create Logs" on page 7-7
- ☐ "Determine When to Make a User Exempt" on page 7-8
- ☐ "Re-Register Fingerprints" on page 7-8
- ☐ "When to Enable Fingerprint Required for Password Configuration" on page 7-9
- ☐ "User Name Display" on page 7-9

Note: All screen shots are taken from the Omnicell 14.0 release.

Prepare for Registration

The registration process requires some advanced preparation. Before beginning the registration process, ensure:

- Proper privileges and the cabinet settings are in accordance with the facility policy and procedure.
- Confirm marked as a registrar. (See "Modifying the FP Registrar for Individual Users" on page 5-3.)
- Clean the sensor gently with a moist towelette or alcohol wipe. Dry the sensor before proceeding with registration.
- Check the sensor to damaged pixels. (See "Checking Pixel Damage" on page 8-1.)

Register Fingerprints

The initial fingerprint registration process requires two people—the FP Registrar and the user being registered. In order to initiate registration, a valid FP Registrar (**Y**) Yes or (**S**) Supervisor must log in first.

1. FP Registrar or Supervisor log onto cabinet. User ID must have FP Registrar permissions.

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2. Select **User Menu** > **Add User Fingerprint**.

   Registration functions for Touch & Go are located in the User Menus function at the cabinet. (See Figure 7-1.) When logged in with FP Registrar permissions, access to user fingerprint registration, **Add User Fingerprint**, is available.

Figure 7-1. Color Touch: User Menu (FP Registrar logged in)—Add User Fingerprint

3. After the registrar presses **Add User Fingerprint**, the system prompts for the "new" user (the user being registered) to enter their User ID and Password as part of the registration workflow.
4. After the user enters their ID and password, the Fingerprint Registration Practice screen is displayed. (See Figure 7-2.)
   - Use the practice screen to determine which finger yields the best image for registration.
   - To help the user increase the likelihood of a successful login, the practice screen displays the following:
     - A sample fingerprint scan properly placed in the target reticle.
     - A diagram of proper finger placement.
     - Other tips in text.
     - A fingerprint scanning practice area which displays the image captured by the sensor.
     - A fingerprint scan quality score.

     If necessary, suggest using a fingerprint enhancer. A fingerprint enhancer pad may be needed by individuals with worn ridge detail or excessively dry hands. It can improve fingerprint capture and enhance ridge detail.

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- Practice fingerprint placement technique.
  a. Identify the core feature or swirl pattern by looking at the finger.
  b. Anchor the hand for consistent placement.
  c. Place the finger flat on sensor for at least two seconds; lift when system beeps. Do not roll the finger.
  d. Apply firm, moderate pressure. If the fingernail turns white, the user is pressing too hard.
  e. If the print is not centered on the core feature or doesn't cover enough of the window, try again.
  f. Keep practicing until able to generate a high quality image for several consecutive scans with the same finger.

Note: After 4 scans, the screens are reset and the user can keep scanning.

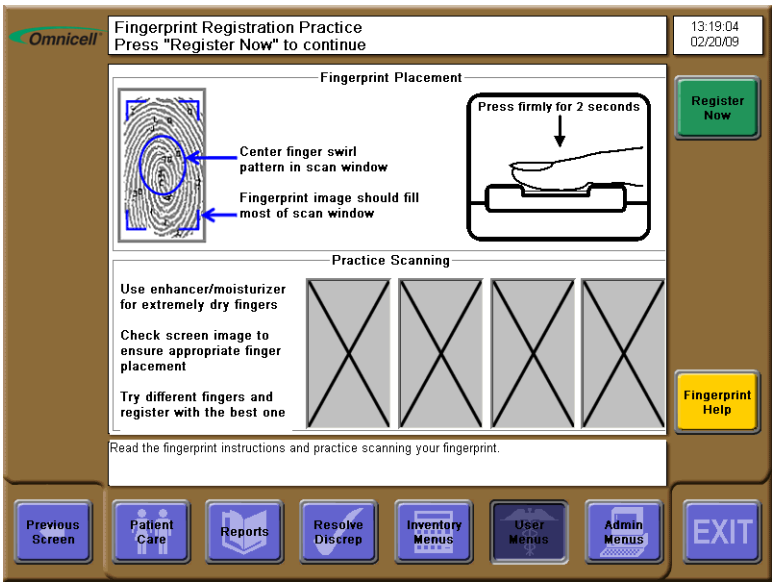

Figure 7-2. Color Touch: Fingerprint Registration Practice

5. When ready, select **Register Now** to begin.

6. Select the finger to register. (See Figure 7-3.)

   The user should choose the finger from practice with the highest consistent quality scores. Due to the design of the biometric system, the right hand is usually recommended.

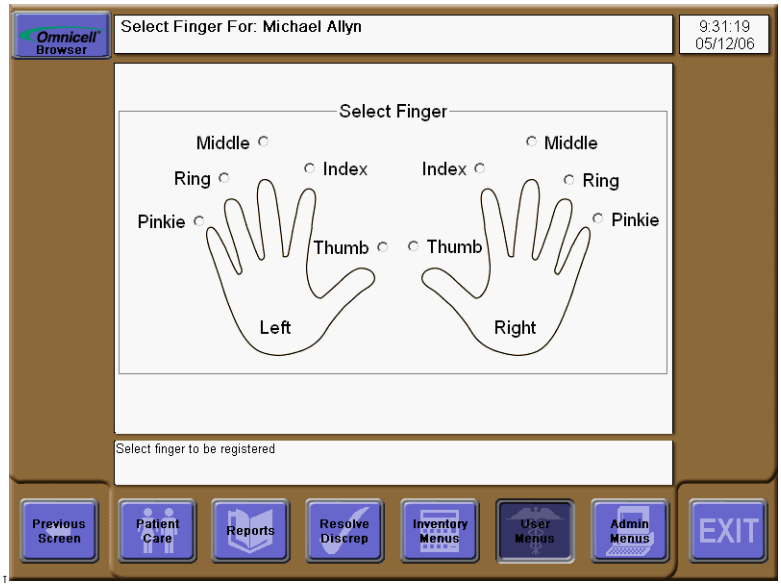

Figure 7-3. Color Touch: Select Finger window

7. After selecting the finger to register, the Fingerprint Instructions window is displayed, if enabled. Review fingerprint instructions as needed. Select **OK**. (See Figure 7-4.)

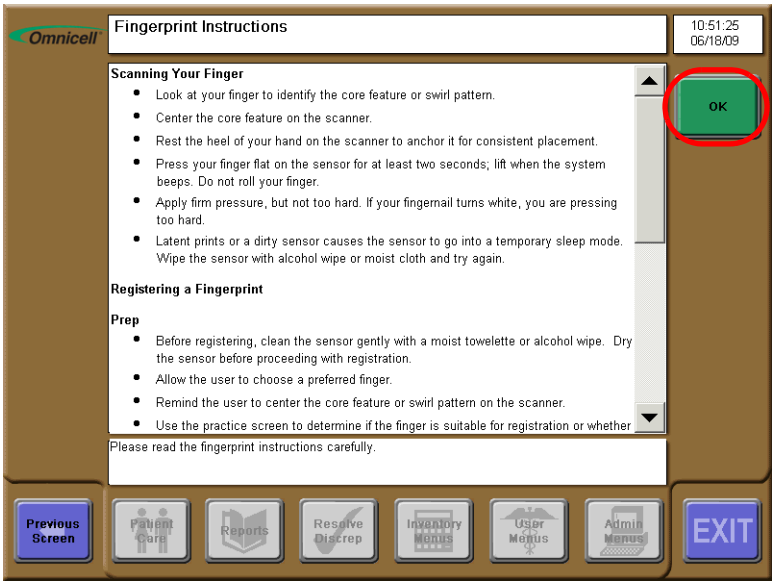
Omnicell
Fingerprint Instructions
10:51:25
06/18/09
Scanning Your Finger
Look at your finger to identify the core feature or swirl pattern.
Center the core feature on the scanner.
Rest the heel of your hand on the scanner to anchor it for consistent placement.
Press your finger flat on the sensor for at least two seconds; lift when the system beeps. Do not roll your finger.
Apply firm pressure, but not too hard. If your fingernail turns white, you are pressing too hard.
Latent prints or a dirty sensor causes the sensor to go into a temporary sleep mode. Wipe the sensor with alcohol wipe or moist cloth and try again.
Registering a Fingerprint
Prep
Before registering, clean the sensor gently with a moist towelette or alcohol wipe. Dry the sensor before proceeding with registration.
Allow the user to choose a preferred finger.
Remind the user to center the core feature or swirl pattern on the scanner.
Use the practice screen to determine if the finger is suitable for registration or whether
OK
Please read the fingerprint instructions carefully.
Previous Screen
Patient Care
Reports
Resolve Discrep
Inventory Menus
User Menus
Admin Menus
EXIT

Figure 7-4. Color Touch: Fingerprint Instruction window

Note: For the Fingerprint Instruction window to be displayed, the Fingerprint Instruction configuration option and fingerprint scanner support must be enabled. The window is displayed prior to fingerprint registration by default, but can be disabled. It can be accessed from the Fingerprint Registration Practice window.

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8. Generate a high quality print. Scan the selected finger four times. (See Figure 7-5.)
   a. Core feature is centered and covering the window.
   b. Quality score is in the 70's and higher.

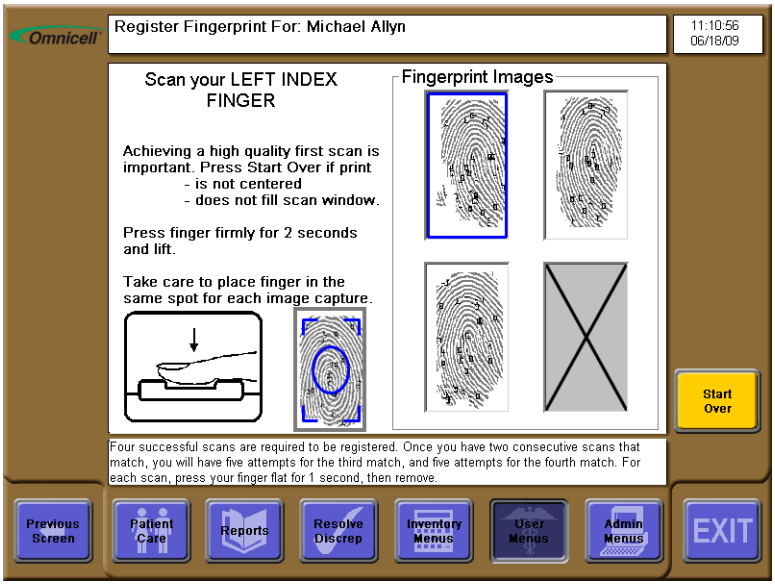
Omnicell
Register Fingerprint For: Michael Allyn
11:10:56
06/18/09
Scan your LEFT INDEX FINGER
Achieving a high quality first scan is important. Press Start Over if print
- is not centered
- does not fill scan window.
Press finger firmly for 2 seconds and lift.
Take care to place finger in the same spot for each image capture.
Fingerprint Images
Start Over
Four successful scans are required to be registered. Once you have two consecutive scans that match, you will have five attempts for the third match, and five attempts for the fourth match. For each scan, press your finger flat for 1 second, then remove.
Previous Screen
Patient Care
Reports
Resolve Discrep
Inventory Menus
User Menus
Admin Menus
EXIT

Figure 7-5. Color Touch: User Menu, Add User fingerprint Function—Fingerprint Registration in Process

Users can make five attempts to record a successful third scan and an additional five attempts for the fourth scan. If a user does not record a positive match within the five attempts, that user must start the registration process again.

9. When a user completes a registration attempt, the fingerprint registration quality is compared against the Fingerprint Registration Quality value.

   a. If the scans are acceptable, registration is complete.

      If the quality is greater than or equal to the minimum, the registration is complete. (See Figure 7-6.) Select **OK** to return to the User Menu.

Figure 7-6. Color Touch: Registration Complete

   b. If the scans are unacceptable, the user is prompted to try again.

      When the configuration option Fingerprint Registration Quality Enforced is enabled and a user's fingerprint is below the minimum (or required) value, the registration cannot be completed. The user is prompted to try again. (See Figure 7-7.) Select **OK** to return to the registration window.

      When the configuration option Fingerprint Registration Quality Enforced is disabled and a user's fingerprint is below the minimum (or required) value, the system recommends, but does not require, the user to re-register.

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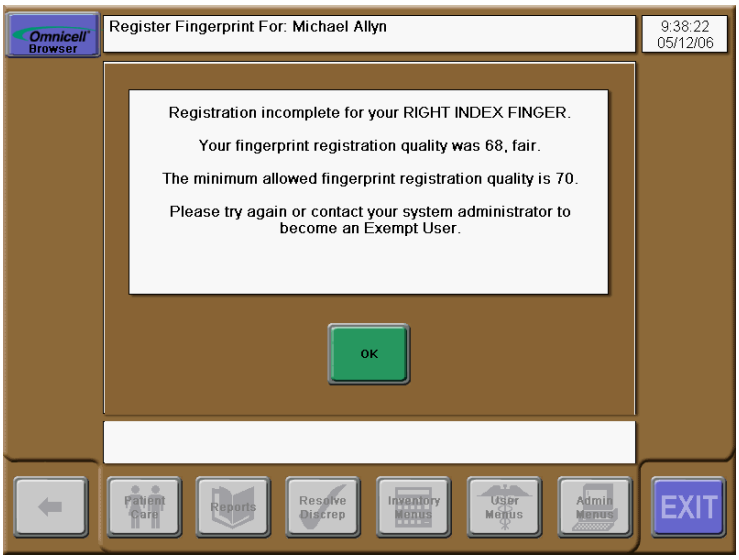

Figure 7-7. Color Touch: Registration Incomplete

10. Clean sensor with a hypo-allergenic, dry tissue before registering the next user.

Create Logs

It is highly recommended that each PM/IS maintain a log of registered users and exempt users. The log information should include user quality scores and whether a fingerprint enhancer was required. This is helpful in tracing any user-specific issues.

The easiest way to begin a log is to export the user database from the OmniCenter server when conducting training. This can be used as a checklist particularly to keep track of exempt user, noting reason for exemption.

Refer to FP Compliance Checklist in "Appendix B: Best Practice Forms" .

1. Create a log of fingerprint exempt users; note exemption factors.
   - System won't acquire an image and beeps when user's finger has been on the sensor for 2-3 seconds.
   - User is unable to generate fingerprint scores in the 70's on the practice screen. Suggest using a fingerprint enhancer, if purchased.
   - User has hobbies or recent activities that have degraded finger conditions.
   - Registration has taken 10 minutes or longer
   - User has extremely dry, inelastic fingers.
2. Create a log of registered users; confirm registration.
   a. Make sure the user can log in 3-5 times in a row.
      – If not, work on placement and attempt logins again.
      – If user is still not consistently logging in multiple times in a row, re-register.
   b. Identify any users requiring a fingerprint enhancer.

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Determine When to Make a User Exempt

The following is a list of reasons for making a user exempt from fingerprint.

- User is unable to generate fingerprint scores in the 60's on the practice screen.
- System won't acquire an image and beeps when user's finger has been on the sensor for 2-3 seconds.
- User has hobbies that compromise fingerprint quality.
- User has been in the health care profession for many years.
- Registration has taken 10 minutes or longer.

Re-Register Fingerprints

Any user logging in with a valid fingerprint can re-register his/her own fingerprint at will. (See Figure 7-8.) If the user logs in via keyboard entry, the **Re-register** button is not available. The following is the general process flow of the registration process.

1. Log into cabinet using a fingerprint to login.
2. Select **User Menus** > **Re-register Your Fingerprint**. The user is prompted to scan or verify his/her current fingerprint.
   - If the fingerprint is verified, the user can proceed. The Fingerprint Help window is displayed.
   - If the wrong finger is scanned, the user is notified which finger to scan.
   - If the scan is bad, the user is prompted to try again.
3. Practice fingerprint placement or press **OK** to continue.
4. Scan the selected finger up to four times.
   - If the scans are acceptable, re-registration is complete.
   - If the scans are unacceptable, the user is prompted to try again.

Figure 7-8. Color Touch: User Menu (FP Registrar logged in)—Re-Register... and Add User Fingerprint

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When to Enable Fingerprint Required for Password Configuration

The Fingerprint Required for Password configuration should be enabled only after:

- All users are registered at high registration quality or fingerprint exempt.
- If Exempt User Requires Witness is enabled, will there be a witness around?
- Process in place for non-exempt users to gain exemption and have access to system administration help – weekends, nights.
- Users feel comfortable about using fingerprint.
- Fingerprint super users/registrars are trained and experienced at registering users.

User Name Display

User name displayed after login. (See Figure 7-9.)

Omnicell
Local Patient List
Welcome, Michael Allyn
10:56:12
06/18/09
Add New Patient
FLOOR STOCK**
FLOOR STOCK**
Sort by Room
Pending Patient Transfers
Select a patient from the list. To search for a patient, enter the first few characters of the last name or use the scroll bar. If the patient is not found, look in the Global List. Select Pending Patient Transfers to transfer patient meds.
Main Menu
Global List
Local List
Partial Dose List
EXIT

Figure 7-9. Color Touch: Log In Screen

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Scanner Maintenance

Sensor hardware may become damaged over time. Run the sensor check procedure monthly on each cabinet.

This chapter describes the tasks necessary for scanner maintenance at a Color Touch cabinet. The tasks in this chapter include:

- ☐ "Cleaning the Scanner" on page 8-1
- ☐ "Checking Pixel Damage" on page 8-1
- ☐ "Sensor Check Procedure" on page 8-3

Cleaning the Scanner

It is recommended that the scanner be cleaned regularly, on a daily basis or anytime an oily residue appears, as residue build-up can affect login performance.

1. Clean the scanner using regular hospital tissue or moist cloth. A clean cotton cloth, tissue, or moist towelette removes deposits from the sensor surface.
   - Abrasive cleaners should not be used to clean the scanner.
   - Nylon brushes, scouring pads, abrasive cleaning fluids or powders, or steel wool should not be used to clean the scanner.
   - Tissues (e.g. Kleenex) that include lotion should not be used as this worsens the dirty sensor.
   - No soiled material should be used to clean the sensor. A clean cotton cloth or tissue paper absorbs the deposits, but a soiled cloth acts as an abrasive.
2. If needed, to clean or prevent contamination, sanitize the scanner using a slightly damp alcohol wipe.

Important: To avoid damaging the scanner, do not spray or saturate the scanner with alcohol. No other cleaners should be used.

Checking Pixel Damage

Prior to registering users, the scanner should be checked for pixel damage. All scanners should be checked for pixel damage on a monthly basis. A sensor with damaged pixels is more likely to produce false matches. A diagnostic tool is available to identify potential scanner issues.

A message filter for connection or multiple matches can be set to notify an authorized person through email for tracking purposes.

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The system detects and maintains the following sensor health results:

- Failed pixels
- Failed adjacent pixels
- Weak pixels
- Failed rows
- Failed columns.

1. Ensure the configuration Fingerprint Login Attempts Before Help has a non-zero value
2. Open the login practice screen.
   - To look for dead pixels, invoke the practice screen by either purposefully failing fingerprint login attempts several times at the login screen, or logging in and initiating the registration process.
3. Scan finger to capture an image on the sensor.
4. Immediately wipe the scanner with an alcohol wipe to reveal any dead pixels.
   - Make a note of the date, cabinet, and assessment of damage.
5. Check the scanner for any false minutiae points. There are typically some dead pixels.
   - If the dead pixels are few and scattered, the sensor still does its job.
   - For reference, a new sensor should have sensor health results no worse than 6, 4, 0, 0, 0, respectively.
6. If there are lines and contiguous regions of dead pixels, replace the sensor. Record service date. (See Figure 8-1.) This should be performed by a qualified service technician.
   - If dead pixels appear, users should not be registered at this cabinet. Find another cabinet with a healthy sensor to register.

Figure 8-1. Color Touch: Pixel Damage (left) Resulting in False Minutiae Points (right)

7. View the fingerprint health status by accessing the fingerprint diagnostics screen. (See "Fingerprint Diagnostics and Statistics" on page 10-2.)

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Sensor Check Procedure

As fingerprint sensors age, eventually some of the pixels in the sensor begin to fail. Omnicell has developed a tool that detects these failed sensor pixels. When the failures approach the threshold that cause scanning errors, the sensor can be replaced, proactively.

This tool is included in the Omnicell 14.0 release of Color Touch software. This tool has been added to the following releases of Color Touch software. It should be applied as needed.

1. Download the appropriate Color Touch update:
   a. For 12 series cabinets:

      \\hdq-ftp\ftproot\Released_Software\OmniCT\OC12.2_5.9.1.x\5.9.1.17

   b. For 11 series cabinets:

      \\hdq-ftp\ftproot\Released_Software\OmniCT\OC11.1_5.8.1.x\5.8.1.9
2. Proceed with the cabinet upgrade following normal upgrade procedures.

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Training Customers

Provide thorough training to users in order to make the system as easy to use as possible.

User training should focus on:

- "Proper Use of Fingerprint Log In" on page 9-1.
- "Proper Finger Placement" on page 9-1.
- "Achieve a Quality Fingerprint Registration" on page 9-2.
- "Consistent Finger Placement at Log In" on page 9-3.

Registrar training should focus on:

- "Proper Use of Fingerprint Log In" on page 9-1.
- "Proper Finger Placement" on page 9-1.
- "Consistent Finger Placement at Log In" on page 9-3.
- "Appropriate Maintenance of the Sensor" on page 9-4.

Note: All screen shots are taken from the Omnicell 14.0 release.

Proper Use of Fingerprint Log In

After registering a user, make sure they can login 3-5 times in a row with their fingerprint. If not, work on placement and attempt logins again. It is best to remember to use the same placement used during registration. If they still cannot consistently log in multiple times in a row, re-register.

Proper Finger Placement

Ensure the user understands correct hand and finger placement:

- Anchor hand for consistent placement.

Figure 9-1. Color Touch: Anchor Hand (L-one cell; R-table top)

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- Align the core feature between the two notches.

Figure 9-2. Color Touch: Finger Placement

- Do not roll finger.
- Verify the core finger pattern is the part placed on the scanner.

Achieve a Quality Fingerprint Registration

After the first print is scanned, the second print must meet the minimum match criteria when compared to the first print. If the minimum match score is not met, both prints are thrown out, even if the second print has better centering, coverage, and quality.

The third print is compared against the first and second, etc. The system picks the print that has the highest combined match score to the other three prints AND a quality score at least 70.

The system is not "averaging" or combining the prints to come up with a registration model.

Fingerprint Registration Quality

When the configuration option Fingerprint Registration Quality Enforced is enabled, a user's registered fingerprint must meet or exceed the value of Fingerprint Registration Quality in order to use fingerprint identification or successfully register a fingerprint.

After completing a fingerprint registration, the user is given feedback on the fingerprint quality. The quality feedback is automatically enabled and cannot be disabled. The setting for the Fingerprint Registration Quality configuration option controls the minimum recommended quality.

Quality is rated as follows:

< 60	low
60-69	fair
70-79	good
80-89	very good
90-100	excellent

The configurable relative quality score is **70** by default.

A quality value below 50 on registration always results in a recommendation for re-registration. If re-registration is recommended, the user has the option to return directly to the registration window to try again.

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Ineligible User

Users with a registration fingerprint quality less than the minimum Fingerprint Registration Quality value are ineligible for fingerprint identification and are not able to perform fingerprint identification with user ID. If any ineligible fingerprint user provides a user ID at login and scans a fingerprint, a warning prompt indicates the fingerprint login cannot proceed and the user is prompted to re-register the fingerprint.

Fingerprint Quality Disabled

If Fingerprint Registration Quality Enforced is disabled, there is no enforced limit on fingerprint registration quality. Users can register fingerprints with a quality below the configured value. Re-registration is recommended but not required. Users with registration quality below the configured value can be added to the short list and can perform a login or witness with ID.

If the scans cannot be combined into a registration signature, the registration fails. The user is notified via a message box and returned to the registration window. (See Figure 9-3.)

Figure 9-3. Color Touch: Registration Failure

Consistent Finger Placement at Log In

The Color Touch display provides near real-time visual feedback to the user regarding image quality and fingerprint placement on the sensor. This is so the user can optimize finger conditions and placement.

The fingerprint feedback section appears whenever a scan attempt is detected on the login screen. The quality indicator graphically represents the quality of the detected print. The green image frame and a green check mark denotes a good image quality. The red image frame and a red X denotes a poor image quality.

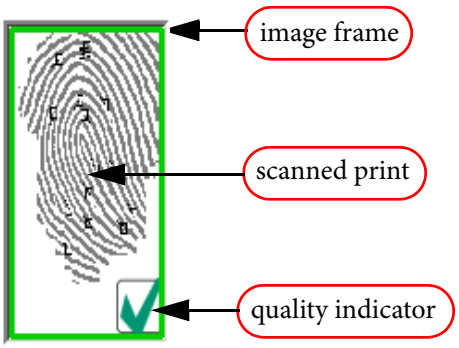

Figure 9-4. Color Touch: Fingerprint Feedback

Poor Image Quality User Flow

If the scanned print does not meet quality requirements, the user is prompted to re-scan. After reaching the configurable number of retry attempts, a training screen is displayed. The display of the training screen is also configurable.

1. After exiting the training screen, the user is able to re-scan. The number of retry attempts is configurable.
2. If the user is still unable to get an acceptable quality scan after the second round of retries, the system informs the user that due to image quality problems with their scanned prints they can only gain access using a user ID/password.
3. The user ID/password login screen is displayed to the user.
   - If no keyboard input is detected after a configurable time interval, the system reverts back to standard login rules with fingerprint support.

Appropriate Maintenance of the Sensor

Clean the sensor, at least daily, using an alcohol wipe, moist cloth, or moist tissue. Dry the sensor after cleaning.

Sensor hardware may become damaged over time. Run the sensor check procedure monthly on each cabinet.

Refer to "Scanner Maintenance" on page 8-1.

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Troubleshooting

During initial registration, it is common for users to be more careful and aware of finger positioning on the scanner. Once accustomed to the scanner, users tend to be more relaxed about finger placement, and may have difficulty achieving a match with the original scan. If this occurs, it is recommended that the user(s) be re-registered, with finger placement the same as during normal use. The user may initially have more trouble registering but the end result is far more reliable.

This chapter describes issues that may be helpful when troubleshooting to support Touch & Go features. These tasks include:

- ☐ "Fingerprint Data Capture" on page 10-1
- ☐ "Minimizing Failed ID" on page 10-2
- ☐ "Sensor is Unresponsive" on page 10-2
- ☐ "Fingerprint Diagnostics and Statistics" on page 10-2
- ☐ "Challenges" on page 10-3

Note: All screen shots are taken from the Omnicell 14.0 release.

Fingerprint Data Capture

The Color Touch cabinet captures data around all fingerprint processes. This information provides visibility to the process.The following log information is recorded during the user login and registration process:

- Wwho attempted to register
- When
- With what fingerprint samples
- Over how many attempts
- Whether they were successful

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Minimizing Failed ID

Note: Applies to shortlist mode only.

The system has built in failed ID blocking.

- If a login fingerprint matches more than one user at or above the minimum quality threshold, the system will warn the user and not let them gain access.

  These users may need to be re-registered with a different finger or made exempt.
- User events report.
  - Category: GEN
  - Multi fingerprint matches
- Sensor check.

  Dead sensor pixels will contribute false minutiae points to users registering at that cabinet.

Sensor is Unresponsive

The sensor can become unresponsive. Latent prints or a gummed up sensor will cause the sensor to go into a temporary sleep mode.

1. Wipe the sensor with a dry tissue or cloth, and try again

   User's fingers may be extremely moist, triggering latent detection
2. If the sensor is still not responding, reset the sensor

   Omni Config > Fingerprint > Fingerprint Sensor
3. Disable, then Enable at console or CT

Fingerprint Diagnostics and Statistics

The fingerprint diagnostics screen includes a display of the most-recent sensor health results. (See Figure 10-1.) When the fingerprint scanner is not connected or not detected, the message reads Scanner not detected.

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1. Select **Omni Config** > **Fingerprint Scanner** menu.

   The main Fingerprint Diagnostics window provides a utility to test the scanner for functionality and quality of scans.

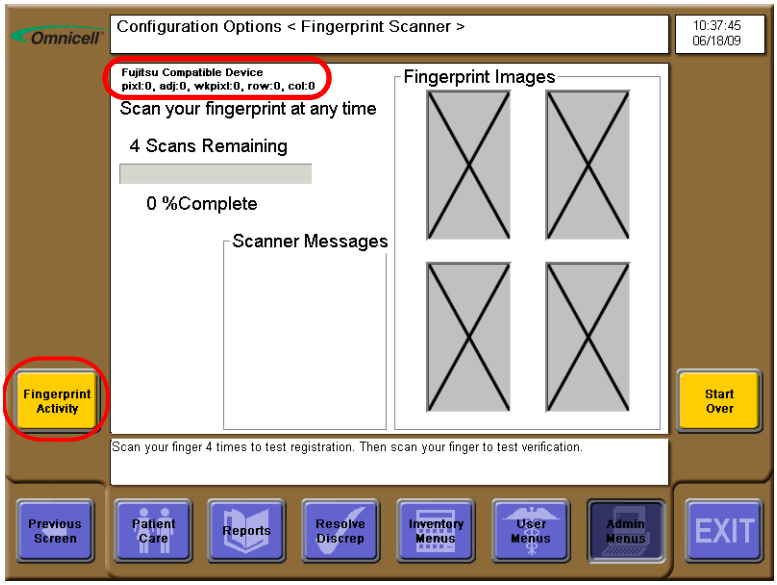

Figure 10-1. Color Touch: Fingerprint Scanner Menu—Diagnostics window

Challenges

- User does not realize that they are not on the shortlist
- Shortlist becomes full and dumps users
- Dirty sensor/latent print
- Bad sensors leading to failed ID
- Fingerprints can change over time; periodic re-registration is necessary.

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Appendix A: Parts/Kit List

This appendix lists the kits used for the Touch & Go retrofit by cabinet type.

Anesthesia Workstation (AWS) and Table Top (TT)

A bar code scanner or a magnetic card scanner comes with the Touch & Go fingerprint scanner. The assembly used (of the four available) for the retrofit will vary depending on which magnetic card reader (of the two options) or bar code scanner (of the two options) the customer selects.

Kit #	Anesthesia Type	Fingerprint	Bar Code Reader	Mag Card Reader	Qty
14-1410	Workstation	Yes	No	No	1
14-1411	Workstation	No	400CT	No	1
14-1412	Workstation	No	No	TRK1	1
14-1413	Workstation	No	490CT	No	1
14-1414	Workstation	No	No	TRK3	1
14-1415	Workstation	Yes	400CT	No	1
14-1416	Workstation	Yes	No	TRK1	1
14-1417	Workstation	Yes	490CT	No	1
14-1418	Workstation	Yes	No	TRK3	1
14-1420	Table Top	Yes	No	No	1
14-1421	Table Top	No	400CT	No	1
14-1422	Table Top	No	No	TRK1	1
14-1423	Table Top	No	490CT	No	1
14-1424	Table Top	No	No	TRK3	1
14-1425	Table Top	Yes	400CT	No	1
14-1426	Table Top	Yes	No	TRK1	1
14-1427	Table Top	Yes	490CT	No	1
14-1428	Table Top	Yes	No	TRK3	1

Table A-1. AWS-TT parts list

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Sure-Med

The kit used for the retrofit depends on whether the fingerprint scanner is to be installed alone or with a card (mag or bar code) reader. Extra cable ties, mounts, and kurly locks are included in the kits.

Kit #	Item #	Item Description	Notes	Qty
14-1236		Fingerprint scanner	Touch & Go standalone retrofit	1
14-1237		Magnetic Card Reader/ Fingerprint scanner	with mag card reader	1
	42-1168	Power cable	for mag/bar code card reader	1
	42-1209	Serial cable	for mag/bar code card reader	1
14-1238		Bar code/fingerprint scanners	with bar code reader	1
	42-1168	Power cable	for mag/bar code card reader	1
	42-1209	Serial cable	for mag/bar code card reader	1
in all above	94-6059	Hex screws		2
in all above	95-6007	Cable ties	to secure extra cable length	1

Table A-2. Sure-Med parts list

OmniRx/OmniTT/Half-Cell

The kit used for the retrofit depends on whether the fingerprint scanner is to be installed alone or with a card (mag or bar code) reader. The kits include extra mounts and kurly locks.

Kit #	Item #	Item Description	Notes	Qty
14-1239		Fingerprint scanner	Touch & Go stand alone retrofit	1
14-1240		Magnetic Card Reader/ Fingerprint scanner	with mag card reader	1
	42-1168	Power cable	for mag/bar code card reader	1
	42-1168	Power cable	for mag/bar code card reader	1
14-1241		Bar Code/Fingerprint scanners	with bar code reader	1
	42-1168	Power cable	for mag/bar code card reader	1
	42-1222	Serial cable	for mag/bar code card reader	1
in all above	51-7026	Pivots		2
in all above	94-6103	E-rings		2
in all above	94-6237	6-32x3/8 FH Torx screws		4
in all above	95-6007	Cable ties	to secure extra cable length	2

Table A-3. OmniRx, OmniTT, Half Cell, and Anesthesia TT parts list

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Color Touch Cabinet

The kit used for the retrofit depends on whether the fingerprint scanner is to be installed alone or with a card (mag or bar code) reader. Extra cable ties, mounts, and kurly locks are included in the kits. A power cable and a serial cable are provided for the card reader.

Kit #	Item #	Item Description	Notes	Qty
14-1233		Fingerprint scanner	Touch & Go standalone retrofit	1
14-1234		Magnetic Card Reader/ Fingerprint scanner	with mag card reader	1
14-1235		Bar Code/Fingerprint scanners	with bar code card reader	1

Table A-4. Color Touch Cabinet parts list

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Appendix B: Best Practice Forms

The attached forms can be accessed from the following location:
http://inSite/departments/FieldOps/BestPractices/Pages/HomePage.aspx

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Fingerprint Setup

Place a check in the box for each function that has been completed.

Core Functions
Required for all facilities

- ☐ Discuss Fingerprint options with the customer System Administrator. Refer to *Fingerprint Settings Considerations* chart.

- ☐ Determine best user authentication mode based on customer feedback.

  Only one option should be selected as the primary option. Two-factor is the preferred method.

  - ☐ Touch & Go
  - ☐ Two-Factor w/Fingerprint
  - ☐ Two-Factor w/Password

  - Single-factor authentication uses one piece of information to determine the identity of a person (such as password, user ID, or fingerprint).
  - Two-factor authentication uses two pieces of information to determine identity. This is sometimes called strong authentication.

  For more information, refer to Omnicell Fingerprint Best Practices Training module.

- ☐ Configure setting based on best practices for type of use. See *Cabinet Configuration Options* on page 2 of this document.

- ☐ Demonstrate use based on the decided settings.

- ☐ Determine fingerprint registrars.
  - ☐ Registrars are identified and named.
  - ☐ Registrars are trained and certified.
  - ☐ Registrars have successfully registered users.

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Cabinet Configuration Options

Option Name		Recommended Setting: Non-Shortlist	Recommended Setting: Shortlist Mode	Agreed Setting
Fingerprint Scanner Support	(FINGERPRINTSUPPORT)	Enable		☐
Registration Configurations				
Fingerprint Registration Quality Enforced	(FINGERPRINTQUALITYENFORCED)	Enable		☐
Fingerprint Registration Quality	(FINGERPRINTREGTHRESHOLD)	70		☐
Fingerprint Minimum Match for Registration	(FINGERPRINTREGMATCH)	7		☐
Shortlist Configurations				
Fingerprint Inactivity Aging	(FINGERPRINTAGING2)	0	16	
Fingerprint Minimum Match for Short List	(FINGERPRINTSHORTMATCH)	7		☐
Fingerprint Short List Max Size	(FINGERPRINTSHORTLISTSIZE)	30		☐
Non-Shortlist Configurations				
Fingerprint Minimum Match with User ID	(FINGERPRINTIDMATCH)	3		☐
Matching Sensitivity				
Fingerprint Match Sensitivity	(FINGERPRINTSECURITYLEVEL)	4		☐
Other Modifications				
Exempt User Daily Use Time	(FINGERPRINTDAILYTIME)	16		
Fingerprint Exempt Users Require Witness	(FINGERPRINTEXEMPTWITNESS)	Disable		
Fingerprint Instructions	(FINGERPRINTINSTRUCTIONS)	Disable		
Fingerprint Login Attempts Before Help	(FINGERPRINTTRAININGTHRESHOLD)	4		
Fingerprint Required for Password	(FINGERPRINTREQUIRED)	Disable		

Sign Off

The fingerprint settings have been agreed upon by the facility and configured as annotated.

Facility Name/Site: _____

Name (Sys Admin) _____ Signature: _____ Date: _____

Name (OC PM) _____ Signature: _____ Date: _____

Fingerprint Registration

Place a check in the box for each function that has been completed.

Checklist

- ☐ Give an overview of Touch & Go based on configurations and set up.
- ☐ Demonstrate proper use.
- ☐ Ensure that the user is in the system.
  - Use **Reset User Password** option or have user log in with ID and password.
- ☐ Determine the finger to be registered.
  - Allow the user to choose based on preference.
    Due to the design of the biometric system, the right hand is recommended.
  - Use the practice screen to determine if the finger is suitable for registration or whether a different finger should be used.
  - If necessary, suggest using a fingerprint enhancer.
    A fingerprint enhancer pad may be needed by individuals with worn ridge detail or excessively dry hands. It can improve fingerprint capture and enhance ridge detail.
- ☐ Practice fingerprint placement technique.
  The 1st print becomes the standard that the 2nd print needs to match. The 3rd print then has to match the 1st and 2nd, the 4th has to match the 1st, 2nd, and 3rd.
  - Identify the core feature or swirl pattern by looking at the finger.
  - Anchor the hand for consistent placement.
  - Place the finger flat on sensor for at least two seconds; lift when system beeps. Do not roll the finger.
  - Apply firm, moderate pressure.
    If the fingernail turns white, the user is pressing too hard.
  - If the first print is not centered on the core feature or doesn't cover enough of the window, START OVER.
- ☐ Generate a high quality print.
  - Core feature is centered and covering the window.
  - Quality score is in the 70's and higher.

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Checklist (continued)

☐ Create a log of fingerprint exempt users; note exemption factors.

- System won't acquire an image and beeps when user's finger has been on the sensor for 2-3 seconds.
- User is unable to generate fingerprint scores in the 70's on the practice screen. Suggest using a fingerprint enhancer, if purchased.
- User has hobbies or recent activities that have degraded finger conditions.
- Registration has taken 10 minutes or longer
- User has extremely dry, inelastic fingers.

☐ Create a log of registered users; confirm registration.

- Make sure the user can log in 3-5 times in a row.
- If not, work on placement and attempt logins again.
- If user is still not consistently logging in multiple times in a row, re-register.
- Clean sensor with a hypo-allergenic, dry tissue before registering the next user.
- Identify any users requiring a fingerprint enhancer.

☐ Review maintenance procedures.

- Perform daily cleaning with alcohol wipe or moist cloth.
- Do not clean with abrasive cleaner.
- Periodically check for pixel damage.
  a. To look for dead pixels, invoke the practice screen by either purposefully failing fingerprint login attempts several times at the login screen, or logging in and initiating the registration process.
  b. At the practice screen, obtain a fingerprint image and then wipe the sensor with a moist cloth to reveal any dead pixels.
  c. Make a note of the date, cabinet, and assessment of damage.
  d. Replace any damaged sensors and record service date.
- Latent prints or a dirty sensor causes the sensor to go into a temporary sleep mode. Wipe the sensor with alcohol wipe or moist cloth and try again.

Sign off

Facility Name/Site: _____

Evaluator Name/Title: _____

Signature: _____ Date: _____

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Account Name: CSN:					
user_id	user_name	user_type	Successful Registration	Exempted User	FP Enhancer Used

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Glossary

Enrollment model See "Registered print" .

False Acceptance An error which occurs when the system wrongly identifies a person as a different individual.

False Negative See "False Reject" .

False Positive See "False Acceptance" .

False Reject An error which occurs when the system denies access to a properly registered person.

Fingerprint Exempt Certain users may not be able to provide a fingerprint scan. It will be possible to indicate such users as fingerprint exempt. Special rules will apply to fingerprint exempt users so they may use the system even when a fingerprint is normally required.

Fingerprint scan See "Scanned print" .

Fingerprint Scanner A USB hardware device that scans a fingerprint. Software can interface with this device to analyze a user's fingerprint.

Fingerprint Signature Binary data, variable in length, which uniquely identifies a user's fingerprint.

Identification The process of uniquely identifying a user from a pool of registered users.

Image quality The quality of the scanned fingerprint.

Initial Daily Use The first time a user logs onto a unit in a given time period. This would require a user ID (either typed or via a card reader) and a fingerprint scan.

Match A match occurs when the system associates a newly scanned fingerprint with a registered print.

Password Private user code typed in as part of login or witness actions. For this feature a fingerprint scan can take the place of a password. The password and fingerprint are not the same.

Registered print The numeric representation of the registered fingerprint used for verifying a user's identity.

Registration The process of scanning a fingerprint to create a fingerprint signature for a user. This signature is stored for later comparison.

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Registration model See "Registered print" .

Scanned fingerprint See "Scanned print" .

Scanned print The fingerprint sample submitted by a user during an attempt to gain access to the system.

Short List The list at the Color Touch which stores the fingerprint models of the most recent users to access the cabinet. After initial daily use the user will be placed on a short list of fingerprint users eligible for quick login via subsequent daily login. This will be only a subset of the total fingerprint user database.

Subsequent Daily Use For a given time period after initial daily use, the user will be able to login to the unit with just a fingerprint scan. This time period is configurable.

User Enrollment Process The course by which a user submits a fingerprint to be stored as a reference (registration model) for comparing against login scans.

User Login Process The course by which a user attempts to gain access to the system by presenting one or more uniquely identifiable characteristics to the system. If the system recognizes these characteristics, the user is granted access.

User Registration Process See "User Enrollment Process" .

Verification The process of scanning a fingerprint to compare against a stored registration signature in order to verify the identity of a user. A newly scanned fingerprint is compared against a retrieved registration model.

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Index

A

aging for short list 6-4
alignment, finger 9-2
anchoring the hand 9-1
Anesthesia Workstation (AWS)
  final procedures 2-10
  installing 2-1—2-11
  parts and kits list A-1
authentication mode 4-3

B

bar code reader 1-6
biometric positive-ID system 1-1

C

Card ID mode 3-1
Card Only User Login/Witness config option 3-1, 3-4
card reader config option
  Delimiter Character 3-4
  Post-Skip Characters 3-4
  Precede Characters 3-5
  Pre-Skip Characters 3-5
  Read Characters 3-5
  Secondary Read Characters 3-5
  Secondary Skip Characters 3-5
  Type 3-6
card reader for Sure-Med 2-13
card reader types 3-2
CD ROM power cable 2-7
Color Touch parts and kits list A-3
configuration settings for a card reader 3-1—3-6

D

data capture errors 10-1
dead sensor 10-2
default settings 5-1
default settings, user type 5-2
diagnostics 10-2
disabling fingerprint 9-3

E

electronics sled
  accessing OmniRx or OmniTT 2-24
  accessing Sure-Med 2-12
  securing Sure-Med 2-22
ESD wristband 2-10—2-36
exempt from biometric requirements 1-2
Exempt User Daily Use Time config option 6-7
exempt users 7-8

F

failed login 6-4, 6-6
false reject 6-4, 6-6
fast access 1-1
finger placement
  consistent 9-3
  overview 9-1
  re-registration 7-8
fingerprint
  activity availability 6-12
  config option
    Debug Use Only 6-11
    Exempt Users Require Witness 6-7
    Inactivity Aging 6-4
    Instructions Window 6-7
    Login Attempts Before Help 6-8
    Match Sensitivity 6-6
    Minimum Match for Short List 6-5
    Minimum Match with User ID 6-6
    Registration Quality 6-3
    Registration Quality Enforced 6-2
    Required for Password 6-10
    Scanner Support 6-2
    Short List Max Size 6-5
  diagnostics 10-2
  Help window 6-8
  Instructions window 7-4
  Minimum Match for Registration 6-3
  minutia numeric code 1-2
  quality 9-2
  signature 1-4
  troubleshooting 10-1
  verification 1-4

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FP Exempt field
  password requirements 6-9
  setting up 5-3
FP Registrar 5-1—5-4, 6-9
Fujitsu fingerprint technology software 1-2

G

generating a scan 7-5
go live 4-4

H

half-cell parts and kits list A-2
health results of sensor 8-2
high security 1-1

I

ID blocking 10-2
ineligible users 9-3
initial fingerprint registration 1-4, 7-1
installing scanner 2-1—2-36
installing the Touch & Go device
  Half-cell 2-27
  OmniRx and TT models 2-27
  OmniSupplier CT 2-34
  Sure-Med with card reader 2-16

K

keyboard entry 6-9
kit/parts required for Touch & Go
  OmniRx, TT models, Half-cell 2-23, 1-1
  OmniSupplier CT 2-33
  Sure-Med 2-12

L

last activity time stamp 6-5
latent prints 10-2
least recent activity timestamp 6-5
logging in 6-1, 9-1
login attempts 6-8
login witness 5-4
logs, creating 7-7

M

magnetic card reader 1-6
maintenance, scanner cleaning 8-1
manuals, related documentation ii-1
midnight processing 6-4
minimizing ID 10-2
minimum match score 6-3—6-5
minimum registration quality 6-2
minutia points 1-2, 10-2
mounting schemes 2-13
multiple fingerprint matches 10-2
multiple matches 8-1

O

Omnicell 14.0 Color Touch 5.10 Guide ii-2
Omnicell Technical Release Summary ii-2
OmniCenter 14.0 Administrator Guide ii-2
OmniCenter setup for card readers 3-3
OmniRx, parts and kits list A-2
OmniSupplier CT 2-34
Omnitech Users 6-9
OmniTT, parts and kits list A-2

P

password entry 6-9
pixel damage 8-1
planning for Touch & Go 4-1—4-4
positive match 7-5
practice screen 7-2

Q

quality comparison 7-6
quality scores 9-2

R

registering other users
  Fingerprint Registrars 5-2
  FP Registrar field 5-1
  supervisor 5-1
registrars
  changing status 5-3
  designated users 1-4
  identify potiential 4-4
  purpose 1-4
  setting up 5-2

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registration
before you start 7-1
cleaning sensor after use 7-7
failed 9-3
finger selection 7-4
generating a scan 7-5
initial 7-1
minimum match criteria 9-2
overview 1-1
planning for 4-4
practice screen 7-2–7-3
quality required to attain 1-4
re-registering fingerprints 7-8
related documentation ii-2
reload, short list 6-3
rescan process 9-4
resetting passwords 6-9
retrofitting a card reader with fingerprint scanner 3-1
ridge detail 7-2

S

selecting the best finger for registration 7-4
sensor check 8-3, 10-2
sensor health 6-10–6-11, 8-2
short list 6-3, 6-5
Short List Attempts Before UserID Prompt config option 6-11
sleep mode 10-2
Stage 1 Sensor Health Threshold Mask config option 6-10
Stage 2 Sensor Health Threshold Mask config option 6-11
stopping enforcement 9-3
Supervisor user type 5-1
Sure-Med
installing without card reader 2-14
installingwith card reader 2-16
kit/parts required 2-12
parts and kits list A-2

T

testing the scanner 10-3
threshold minimum values 10-2
threshold values 6-3
training customers 4-4, 9-1
troubleshooting 10-1–10-3

U

unresponsive sensor 10-2
Usage statistics 6-13
User ID Entry Mode 3-1, 3-4
user record
registration privileges 1-4
user access 1-4
witness 1-4
user type, default settings 5-1–5-2
users, exempt 7-8

V

Validate Fingerprint at Registration config option 6-12
verification of user fingerprints 1-1

W

witness transactions 6-1, 6-9

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